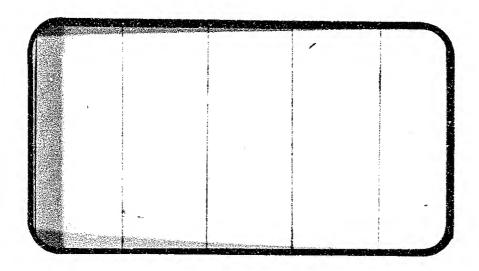


NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

NASA CR-134420



(NASA-CR-134420) STATIC STABILITY
CHARACTERISTICS OF THE SPACE SHUTTLE
EXTERNAL TANK (MSFC MODEL 458) DURING
REENTRY IN THE MSFC 14-INCH (Chrysler
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SPACE SHUTTLE

AEROTHERMODYNAMIC DATA REPORT



JOHNSON SPACE CENTER

HOUSTON, TEXAS

DATA DANagement services



DMS-DR-2145 NASA CR-134,420

STATIC STABILITY CHARACTERISTICS OF THE

SPACE SHUTTLE EXTERNAL TANK (MSFC MODEL 458)

DURING REENTRY IN THE MSFC 14-INCH TWT

(TAIF)

By

Paul E. Ramsey, MSFC Michael K. Robertson, NSI Gary W. Winkler, NSI

Prepared Under NASA Contract Number NAS9-13247

by

Data Management Services Chrysler Corporation Space Division New Orleans, La., 70189

for

Engineering Analysis Division

Johnson Space Center
National Aeronautics and Space Administration
Houston, Texas

WIND TUNNEL TEST SPECIFICS:

Test Number: MSFC TWT 583

NASA Series No.: TA1F Model Number: 458

Test Dates: February 19 - March 5, 1974

Occupancy Hours: 96

FACILITY COORDINATOR:

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Chrysler Corporation Space Division assumes no responsibility for the data presented other than display characteristics.

STATIC STABILITY CHARACTERISTICS OF THE
SPACE SHUTTLE EXTERNAL TANK (MSFC MODEL 458)
DURING REENTRY IN THE MSFC 14-INCH TWT
(TA1P)

By

Paul E. Ramsey*, Michael K. Robertson** and Gary W. Winkler**

ABSTRACT

This report documents data obtained in a wind tunnel test of a 0.003-scale modified MCR 0200 Space Shuttle External Tank (ET) model, MSFC Model 458, tested at reentry conditions in the MSFC 14-inch frisonic Wind Tunnel (TWT). This test is a continuation of a series of tests conducted to evaluate the aerodynamic characteristics of the ET during reentry. The test started on February 19, 1974, and was completed on March 5, 1974. Three Mach numbers were investigated: 1.96, 3.48, and 4.96. The angle-of-attack range was -10° to 190°. Eight roll positions of the model from 0° to 315° were tested. The run schedule consisted of 162 runs. No. 120 grit was applied randomly over the model throughout the test.

^{*} MSFC

^{**} NST

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Schedule of Coefficients Plotted:

A) CNM, CIMM, CA, XCP/L, CYM, CYNM, CBL vs. ALPHA

B) CNM, CLMM, CA, XCP/L vs. ALPHA

NOMENCLATURE

	PLOT		
SYMBOL	SYMBOL	DEFINITION	UNITS
$\Lambda_{\mathfrak{b}}$		base area; cross-sectional area of the cylindrical section of the model	in ²
Ac		cavity area, area of the opening required for the balance and sting	in^2
BMC	BMC	Balance Moment Center	
^b ref	BREF	reference span (diameter of the cylindrical section of the model)	in.
body		length of the body	in.
fref	LREF	reference length (diameter of the cylindrical section of the model)	in.
M	MACH	Mach number	
MRP	MRP	Moment Reference Point (located by XMRP, YMRP, and ZMRP)	
P_{b_i}		base pressures	psi
P _t		free stream total pressure	psi
P.,,		free stream static pressure	psi
q		free stream dynamic pressure	psi
$R_{\mathbf{N}}$		Reynolds number based on Lref	
R _N /ft	RN/L	Reynolds number per unit length	per ft.
S _{ref}	SREF	reference area (cross sectional area of the cylindrical section of the model)	in. ²
T _t		tunnel total temperature	°F
c_{pe}	CPC	pressure coefficient of balance cavity	

SYMBOL	PLOT SYMBOL	DEFINITION	UNITS
X,Y,Z	*	body axes system coordinates (for an airplane, the X, Z-plane is the plane of symmetry, the origin of the axes system is the center of gravity or any other convenient point, and the X axis is the airplane longitudinal axis)	in.
X _{c.g.}		distance of center of gravity from nose of body	in.
X_{m}, Y_{m}, Z_{m}		missile axes (see text)	in.
XMRP, YMRP, ZMRP	XMRP, YMRP, ZMRP	Abbreviations for the location of the Moment Reference Point in the missile axis system	in.
$\alpha_{ extbf{T}}$	ALPHA	angle-of-attack, angle between the X_m -axis and a vector in the direction of the relative wind	degrees
φ	PHI	roll angle, i.e., angle between the missile Y _m -axis and the body Y-axis (from a pilot's viewpoint in an airplane, a positive roll angle is a clockwise rotation).	degrees
c_A	СЛ	total axial force coefficient in the body axis system	
c_{A_b}	CAB	base axial force coefficient (same in both missile and body axis systems)	
$c_{\Lambda_{f_m}}$	CAF	forebody axial force coefficient, C_{A} - C_{Ab}	
$c_{\mathbf{A_m}}$	CA	total axial force coefficient in the missile axis system, $F_{A_{\overline{m}}}/q_{\infty}\ ^{S}_{\text{ref}}$	
CL	CBL	rolling moment coefficient in the body axis system	
$C^{\ell m}$	CBL	rolling moment coefficient in the missile axis system, $M_{X_{I\!\! I\! I}}/q_\infty$ $S_{\mbox{ref}}$ $^{\ell}ref$	

のでは、「「「「「「「」」」というでは、「「」」というでは、「「」」というでは、「「」」というでは、「「」」というでは、「「」」というできない。「「」」というできない。「「」」というできない。「「」」

SYMBOL	PLOT SYMBOL	DEFINITION	UNITS
C _m	CLM	pitching moment coefficient in the body axis system	
$C_{m_{\overline{m}}}$	CLMM	pitching moment coefficient in the missile axis system, M_{Y_m}/q_{∞} S_{ref} ℓ_{ref}	
c_{N}	CN	normal force coefficient in the body axis system	
c_{N_m}	CNM	normal force coefficient in the missile axis system, $F_{N_{\tilde{m}}}/q_{\infty}~S_{\text{ref}}$	
c_n	CYN	yawing moment coefficient in the body axis system	
c_{n_m}	CYNM	yawing moment coefficient in the missile axis system, $M_{Z_{\overline{m}}}/q_{\infty}$ Sref ℓ_{ref}	
$c_{\mathrm{Pb}1}$		base pressure coefficient: $\frac{P_{b1}-P_{\infty}}{q_{\infty}}$	
c_{Y}	CY	side force coefficient in the body axis system	
$c_{Y_{\underline{m}}}$	СҮМ	side force coefficient in the missile axis system, $F_{Y_{\underline{m}}}/q_{\infty}$ S_{ref}	
X _{cp} /l	XCP/L	center of pressure location in fraction of body length from nose;	
		$\frac{X_{c.g.}}{\ell_{body}} - \frac{C_{m_{m}}}{C_{N_{m}}}$	
F _{Ym}	SF	side force in the missile axis system, positive in the positive direction of $\boldsymbol{Y}_{\text{III}}$	1b
F_{A_m}	AF	total axial force in the missile axis system, positive in the negative direction of $\mathbf{X}_{\mathbf{m}}$	1b
F_{N_m}	NF	normal force in the missile axis system, positive in the negative direction of $\boldsymbol{Z}_{\boldsymbol{m}}$	1b

SYMBOL	PLOT SYMBOL	<u>DEFINITION</u>	UNITS
M _{Xm}	RM	rolling moment in the missile axis system, i.e., moment about the X_m -axis (a positive rolling moment tends to rotate the positive Y_m -axis toward the positive Z_m -axis	inlb
MY _m	PM	pitching moment in the missile axis system, i.e., moment about the Y_m -axis (a positive pitching moment tends to rotate the positive Z_m -axis toward the positive X_m -axis)	in1b
M _{Zm}	YM	yawing moment in the missile axis system, i.e., moment about the Z_m -axis (a positive yawing moment tends to rotate the positive X_m -axis toward the positive Y_m -axis)	in1b
SUBSCRIPTS			
b		base	
c.g.	* .	center of gravity	
i		identifies the location of the base pressure measurements	
ar		missile axis system	
ref t		reference conditions total conditions	•
A ^c		free stream conditions	

INTRODUCTION

The wind tunnel test described herein is a continuation of a series of tests conducted to evaluate the aerodynamic characteristics of the Space Shuttle External Tank (ET) during reentry.

The basic configuration of the model is a 0.003-scale representation of the ET with fuel lines, forward and aft SRB and Orbiter attach hardware, and including the ET/Orbiter rectangular crossbar attach structure. The model was designated MSFC no. 458.

Three Mach numbers were investigated: 1.96, 3.48, and 4.96. The angle-of-attack range was -10° to 190° . The model was tested at eight roll positions from 0 to 315 degrees. The run schedule consisted of 162 runs.

MSFC balance #237 was used to obtain six-component force and moment data.

MODEL DESCRIPTION AND TEST HARDWARE

The model tested was MSFC number 458, a 0.003-scale representation of the 324-inch diameter MCR 0200 Space Shuttle External Tank. With one exception, all of the model parts were made according to the configuration specified by Rockwell drawing VL78-000041 "B". The exception was a rectangular crossbar which was added to the aft orbiter/ET attach structure according to Martin Marietta memo SA-A-74-9. The general arrangement of the model is shown in the 3-view drawing, Figure 2.

The model had a frontal area at 0° angle-of-attack of approximately 0.742 square inch, roughly 1% tunnel blockage at M = 5.0. However, at

 α = 90°, the frontal area was approximately 5.1 square inches, or 6.8% blockage. The offset sting used at the α 's close to 90° brought the blockage up to about 9% for the worst case. The model was designed so that the balance center was always located close to the centerline of the tunnel

THE REPORT OF THE PROPERTY OF

Model 458 actually consisted of two tank models, one with protuberances (fuel lines, orbiter attach structures, etc.) and one without. The model with protuberances was tested at angles-of-attack from -10° to 190° by using both straight and offset stings. For testing at α's from -10° to 90°, the model was tail mounted. The straight sting, Figure 3, was used for α's from -10° to 30°; and for α's from 50° to 100°, the offset sting, Figure 4, was used. For the α range from 80° to 190°, the model was reversed and nose mounted. The offset sting, Figure 4, was used for α's from 80° to 130°; and the straight sting, Figure 3, was used for α's from 130° to 190°. The model was tested at eight different roll positions. The "clean" model (without protuberances) was tested from 50° to 100° only, Figure 7.

MSFC balance #237 was mounted inside the external tank, on the ET centerline. Installation photographs presented in Figures 3 through 7 show the five arrangements of tank and supporting hardware. The dimensions of each of the model parts are presented in Table I, Model Component Dimensions.

Model stations are sometimes used to describe the x, y, and z axes location of various components of the model. When used, these stations will be given in inches model scale, and the zero reference points will

be same as shown in Rockwell drawing VL72-000088"D".

In an attempt to minimize Reynolds number effects, #120 grit was applied randomly over the model throughout the test.

CONFIGURATIONS INVESTIGATED

The two tank configurations investigated are identified below.

- MCR 0200 configuration modified to include a rectangular crossbar as part of the aft ET/ Orbiter attach structure. It consisted of the following Rockwell-numbered model components:

 T12 AT5 AT6 AT7 AT8 AT9 PT1 PT2 PT3 FL1 FL2 and FR6.
- T_2 "Clean" MCR 0200 ET configuration, equivalent to Rockwell component T_{12}

Brief descriptions of each component are presented below. Refer to the Model Component Dimensions, Table I, for dimensional data.

- T₁₂ Baseline 324-inch diameter external oxygen hydrogen tank without protuberances
- AT₅ Forward orbiter/ET attach structure
- AT₆ Left rear orbiter/ET attach structure
- AT₇ Right rear orbiter/ET attach structure
- AT₈ Forward SRB/ET attach structure
- AT₉ Aft SRB/ET attach structure
- PT₁ LOX vent line fairing
- PT₂ LOX feed line
- PT_3 LH₂ feed line

- FL1 LOX feed line
- FL₂ LH₂ feed line
- FR6 Rectangular crossbar at aft orbiter/ET attach structure

TEST PROGRAM

The Mach numbers for which data were obtained are 1.96, 3.48, and 4.96. Table II presents the nominal test conditions for each Mach number. The full range of obtainable angles-of-attack is -10° to 190° . Angle-of-attack nomenclature is presented in Table III. Models at roll angles of 0° , 45° , 90° , 135° , 180° , 225° , 270° , and 315° were investigated. The run schedule is presented in Table IV.

DATA REDUCTION AND PRESENTATION

Six-component force and moment data were measured using MSFC straingage balance #237 mounted inside the external tank. These data were resolved in the missile axis system and are presented as non-dimensionalized coefficients. An axis system diagram showing sign conventions is shown in Figure 1. The reference dimensions used for data reduction are presented in Table V. The Moment Reference Point (MRP) was taken to be the ET's dry weight center of gravity at station $X_T=1395.4$ inches full scale. This put the MRP 3.259 inches from the model's nose, on the tank centerline. The transfer distances from the balance moment center to the MRP for the various model arrangements are shown in Table VI. Tunnel conditions are listed in Table II. No base or cavity pressure measurements were made; therefore, no base drag corrections were made to the

axial force data. All data were corrected for weight tares and sting deflections.

Schlieren photographs were made to check interference of any shocks reflected off tunnel walls or for separation of the tunnel boundary layer. No significant condition of reflected shocks off tunnel walls or separation of tunnel boundary layer was encountered during the test.

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- 9. NSI-M-9230-73-240. "A Hypersonic Aerodynamic Analysis of the Space Shuttle External Tank During Reentry". D. H. Uken. 20 November 1973.
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DRAWINGS

- 1. VL72-000106, 8-6-73; SRB to ET Aft Attach, Approved Link Concept, Shuttle Study; Rockwell International.
- 2. VL72-000088 "D", 8-3-73; Shuttle Configuration Control, MCR 0200
 Baseline Rev. III, Dated 7-2-73; Rockwell International.
- 3. VL78-000031 "A", 6-29-73; Thermal Protection-External Tank MCR 0200 Baseline Dated 4-11-73; Rockwell International.
- 4. VL77-000051 "A", 9-10-73; SRB Single Pt.-Fwd Thrust Fitting (MCR 0190 Rev. 3 Baseline 8-13-73); Rockwell International.
- 5. SS-A01176 (Wind Tunnel Model Group); Details .015 Scale EOHT Attachments (140 A/B) (67-OTS) 11-20-73; Rockwell International.
- 6. VL78-000041 "A", 5-30-73; External Tank Configuration Control MCR 0200 Revision 1 Dated 5-16-73; Rockwell International.

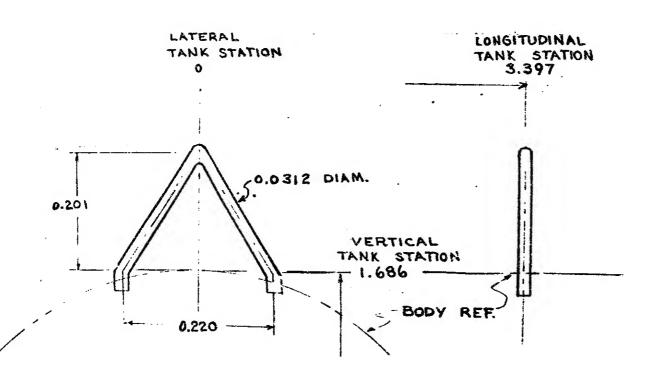
TABLE I. MODEL COMPONENT DIMENSIONS

MODEL COMPONENT: EXTERNAL TANK	- T12	
GENERAL DESCRIPTION: EXTERNAL OX	YGEN - HYDROGEN	TANK WITH OGIVE NOSE AND
SEMI-ELIPTICAL TAIL. BEGINNING AT	MODEL TANK STAT	ION 0.927 AND ENDING AT STATION
6.522	······································	
MODEL SCALE: 0.003		
REFERENCE DRAWING: VL78-000041B	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	
	THEOR	RETICAL
DIMEMSIONS:	FULL-SCALE	MODEL SCALE
Length IN. (NOSE @ X _T =309)	1865	5.595
Max. Width, IN. (DIA.)	324	0.972
Max. Depth		
Fineness Ratic	5.756	5.756
Area	-	
Max. Cross-Sectional	572.555 FT ²	0.742 IN. ²
Planform		
Wetted		
Base	572.555 FT ²	0.742 IN. ²
WI OF TANK CENTED: THE TH	400	1 200

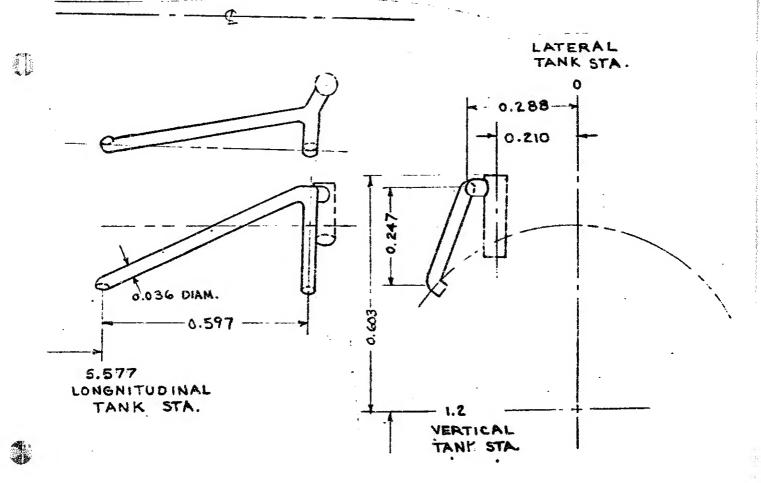
J

Table I Continued

MODEL COMPONENT:	ATTACH STRUCTURE - AT5
GENERAL DESCRIPTION:	FORWARD ORBITER/ET ATTACH STRUCTURE
(2 MEMBERS)	
·	
MODEL SCALE = 0.003	
MODEL SCALE:	
REFERENCE DRAWING: V	L72-000088D

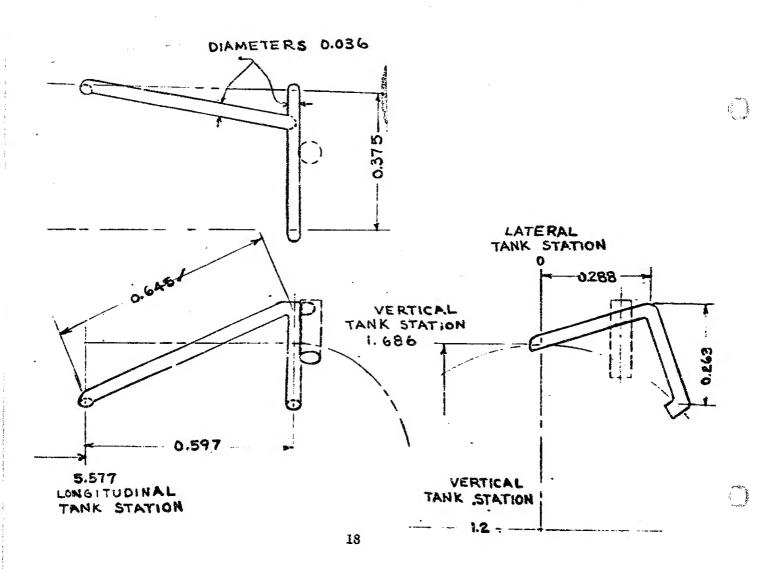


MODEL COMPONENT:	ATTACH STRUCTURE - AT6		
GENERAL DESCRIPTION: _	LEFT REAR ORBITER/ET ATTACH STRUCTURE (2 MEMBERS)		
MODEL SCALE: 0.003			
REFERENCE DRAWING: V	L78-000050		



MODEL COMPONENT	: ATTACH STRUCTURE - AT7
GENERAL DESCRIP	TION: RIGHT REAR ORBITER/ET ATTACH STRUCTURE (3 MEMBERS)

MODEL SCALE: _	0.003
REFERENCE DRAWT	NG: VI 78-000050



MODEL COMPONENT: ATTACH STRUCTURE - AT8	
GENERAL DESCRIPTION: FORWARD SRB/ET ATTACH STRUCTURE (ET PORTION TESTED ONL	Υ)
·	
MODEL SCALE: 0.003	
REFERENCE DRAWING: VL77-000051A	

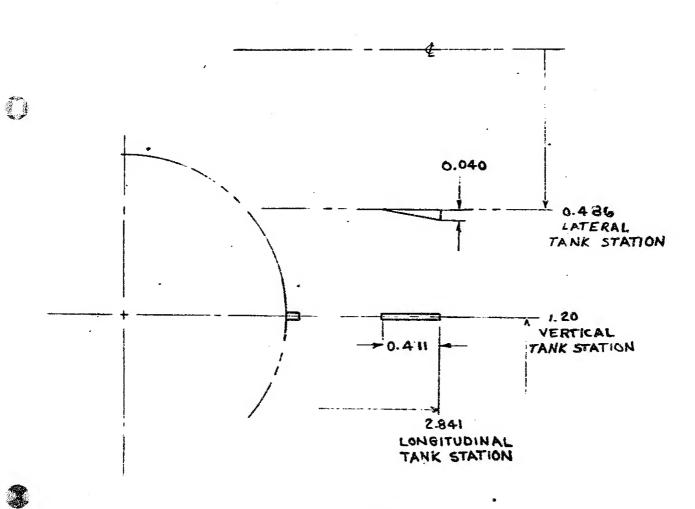


Table I Continued

MODEL COMPONENT:	ATTACH STRUCTURE - AT	<u> </u>	
GENERAL DESCRIPTION:	AFT SRB/ET ATTACH STRUCTUR	RE (3 MEMBERS) (ET PORTION TESTED	
ONLY)			
	**************************************	· · · · · · · · · · · · · · · · · · ·	
MODEL SCALE: 0.003			
REFERENCE DRAWING:	VL72-000106		
0.006	0.48 LATER	ORAL STATION 1.2 VERTICAL TANK STATIO 6.174 LONGITUDINAL TANK STATION	

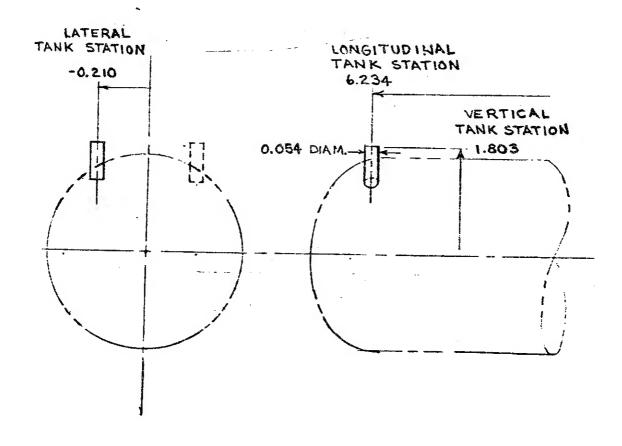
MODEL COMPONENT: LOX VENT L	INE FAIRING - PT1		
GENERAL DESCRIPTION: VENT LINE	ALONG UPPER RIGHT :	SIDE OF ET OGIVE NOSE	
BEGINNING AT MODEL STATIONS XT =	= 0.927, Y _T = 0, A	ID $Z_T = 1.2$; TERMINAT	ING A
$X_T = 2.841, Y_T = 0.162, Z_T = 1.6$			
	· · · · · · · · · · · · · · · · · · ·		
MODEL SCALE: 0.003			
REFERENCE DRAWING: VL78-000031	Α		
	THEO	RETICAL	
DIMENSIONS:	FULL-SCALE	MODEL SCALE	
Length	638	1.914	
Max. Width	17.7	0.053	
Max. Depth	9.3	0.028	
Fineness Ratio			
Area	4		
Max. Cross-Sectional			
Planform			
Wetted			
Base			
Radial Position	19 1/2°	19 1/20	

MODEL COMPONENT: LOX FEED LINE -	- PT ₂		
GENERAL DESCRIPTION: LONGITUDINAL	FUEL LINE ALONG	UPPER RIGHT SIDE O	F ET
BEGINNING AT MODEL STATIONS $X_T = 2$	$2.841 Y_T = 0.19$	4. AND Z _T = 1.645;	<u>TERMINATIN</u> G
AT $X_T = 6.116$, $-Y_T = 0.194$, AND Z_T	r = 1.645		
MODEL SCA: E. 0.003		*	
MODEL SCALE: 0.003			
REFERENCE DRAWING: VL78-000031A			
	THEO	RETICAL	
DIMENSIONS:	FULL-SCALE	MODEL SCALE	
Length	1092	3.275	
Max. Width	30_7	0.092	
Max. Deput Height	28	0_084	
Fineness Ratio			
Area			
Max. Cross-Sectional			
Planform			
Wetted			
Base			
Radial Position	23 1/2°	23 1/2°	

MODEL COMPONENT: LH2 FEED	LINE - PT	
	•	
GENERAL DESCRIPTION: LONGITUDINA	L FUEL LINE ALUN	G UPPER LEFT STDE OF ET
BEGINNING AT MODEL STATIONS $X_T = 2$.841. $Y_{+} = 0.275$	AND 7 = 1.601
TERMINATING AT STATIONS $X_T = 6.116$		
		•
MODEL SCALE: 0.003		
REFERENCE DRAWING: VL78-000031A		
	THEOR	RETICAL
DIMENSIONS:	FULL-SCALE	MODEL SCALE
Length	1092	3.275
Max. Width	25.7	0.077
Max. Depth	14.7	0.044
Fineness Ratio		
Area		
Max. Cross-Sectional		
Planform	·····	
Wetted	•	
Base		
Radial Position	230	230

MODEL COMPONENT: LH2 FEED	LINE - PT	
	•	
GENERAL DESCRIPTION: LONGITUDINA	L FUEL LINE ALUN	G UPPER LEFT STDE OF ET
BEGINNING AT MODEL STATIONS $X_T = 2$.841. $Y_{+} = 0.275$	AND 7 = 1.601
TERMINATING AT STATIONS $X_T = 6.116$		
		•
MODEL SCALE: 0.003		
REFERENCE DRAWING: VL78-000031A		
	THEOR	RETICAL
DIMENSIONS:	FULL-SCALE	MODEL SCALE
Length	1092	3.275
Max. Width	25.7	0.077
Max. Depth	14.7	0.044
Fineness Ratio		
Area		
Max. Cross-Sectional		
Planform	·····	
Wetted	•	
Base		
Radial Position	230	230

MODEL COMPONENT: LUX FEED LINE - FL
GENERAL DESCRIPTION: 18-INCH DIAMETER VERTICAL FUEL LINE AT AFT END OF ET ON
RIGHT
MODEL SCALE: 0.003
REFERENCE DRAWING: VL78-000050



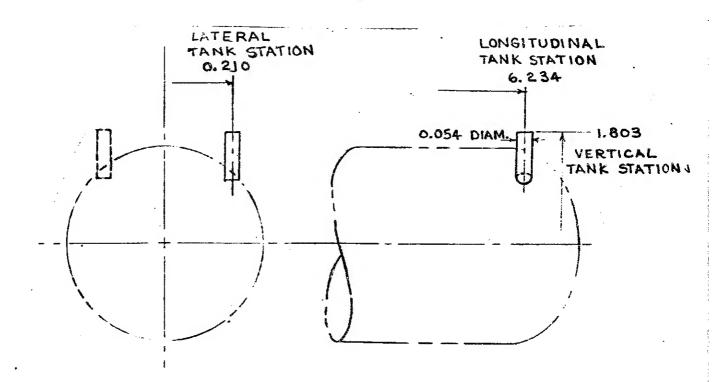
MODEL COMPONENT: LH₂ FEED LINE - FL₂

GENERAL DESCRIPTION: 18-INCH DIAMETER VERTICAL FUEL LINE AT AFT END OF ET

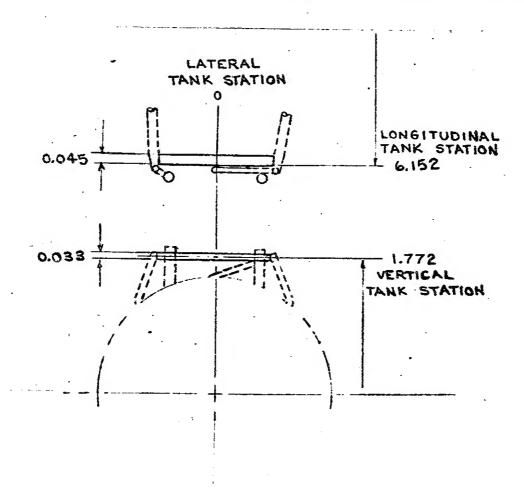
ON LEFT

MODEL SCALE: 0.003

REFERENCE DRAWING: VL78-000050



MODEL COMPONENT: ATTA	ACH STRUCTURE - FR ₆	
GENERAL DESCRIPTION:	AFT ET/ORBITER CROSS MEMBER (CROSS SE	CTION 11 IN. x 15 IN.
LOCATED AT ET-STATION	2050.5	
MODEL SCALE: 0.003		
REFERENCE DRAWING: FI	IGURE 3, MARTIN MARIETTA MEMO SA-A-74-9	



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MACH Number	REYNOLDS NUMBER (per ft) 1	DYNAMIC PRESSURE (pounds/sq.inch)	S TAGNATION TEMPERATUR (degrees Follrenhe	E PRESSURE
1.96	7.0 x 10 ⁶	10.24	100	28
3.50	6.2×10^6	6.74	143	60
4.96	4.8 x 10 ⁶	3.07	132	90
BAI AN		FC 237 CAPACITY:	ACCURACY:	COEFFICIENT TOLERANCE: q=10
	sF 107	lbs	+1.00 lbs +0.54 lbs +0.25 lbs	+0.016 +0.009 +0.004
		inlbs	+1.00 in1bs	+0.003
	IVM		+0.25 in1bs	+0.001
	YM 107	inlbs	+0.54 inlbs	+0.002

TABLE III. ANGLE OF ATTACK NOMENCLATURE

ANGLE OF ATTACK DESIGNATOR	ANGLE OF ATTACK RANGE AND INCREMENT*
Α	-10° to 10° by $\Delta \alpha = 4°$
В	10° to 30°
С	30° to 50°
D	50° to 70°
E	70° to 90°
F	80° to 100°
G	90° to 110°
Н	110° to 130°
I	130° to 150°
J	150° to 170°
· K	170° to 190°

^{*} Sector Angles to be -10, -8, -4, 0, 4, 8, 10, and 0°

TABLE IV.

								TE	51 8	NUS	NUM	BER	s								75 76	<u>디</u>	>0 z	
DATE: 5 MAKCH 1974	T VAR	STHE NOSE SET	AR FWD 0	BB FWD 20	II UP 60	KK UP 90	JJ NA JCO	LI DN 120	CC AFT 140	BB AFT 160	AA AFT 180	AA FWD O	BB FWD 20	LI UP 60	KK UP 90	II DN 120	CC NFT 140	BB NFT 160	AA AFT 180		I	1	ES FOR ALL OF THE C	-10, -8, -4, 0, 4, 8, 10, 0
ا ا	FERNATE																		- Valentine		55	273	K ANG	S WERE
COLLATION SUMMARY	MACH NUMBERS OR ALT	1,96 3,48 4,96	133/c 1/0 4/c	10 2/0 3/0	0/96 0/56 0	98/0 94/0 93/0	111/0 1113/0 114/0	112/0 61/0 62/0	30/0 60/0 59/0	31/0 57/0 58/0	132/0 56/0 55/0	0/5	0/9	0/16	9270	63/0	52/0	2/83	54/0		43 49	, XCP./L 1CPB1, , ICFC, , , MACH	K: 170:+190 SECTO	SCHEDULES
IBER CO	NO.		3 133	3 134/0	3 97/0	3 98	\ <u>\</u>	3 112	3 130	3 3	3 132				_	_	_	_			37	CABL	* 150's	+170
DATA SET/RUN NUMBER	SCHO, PARAMETERS/VALUES	ϕ	0 0								>	45							> = = = = = = = = = = = = = = = = = = =		25 31	CBL, LIGA), G: 90'+110', I: 130	0, H:110: 130; J: 150
583		L	(MCR 0200 ET A	PER 41 "B" LINES B	WITH CROSSBAR D	ADDED, PLUS F	GRIT) G	I	1-1	5	ス	A	M	A	u	I	H	7	X		EM 19	M. CYNM	* 10°	10 + 30, F: 80:
TEST: MSFC TWT 583		CONFIGURATION	Ti (MCR											e-in-parameter une main en					>		AXIS SYSTEM	יכרשש י יכאש		
TEST: M	DATA SET	IDENTIFIER	R99001	002	003	004	067	500	700	007	800	600	010	110	012	013	014	910	910	the state of the s	MISSILE AXIS	CNM	5	SC IEDULES

TABLE IV - Continued

TABLE IV - Continued

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TEST: MSFC	FC 1 W T 583		DA	TA SET,	DATA SET/RUN NUMBER COLLATION SUMMARY	MBER	COLLA	TION S	UMMARY	اذ	DATE: 5	MAKCH	-	7/4
DATASET	CONFIGURATION	SCH	d	RAMETER	PARAMETERS/VALUES	NO.	MACH	MACH NUMBERS	AS (OR ALT		ERNATE INDEPENDENT VARIABLE	DENT VA	RIABLE	
IDEN I FER		5	B	9			1.96 3.48 4.96	.48 4.	-	-	STING	MG NOSE	333	
R99033	-	A	0 180	0.5		3	137/6 16/6 13/0	11/9	3/0		AA			
034		B				M	138/0 15/0	2/0 14	0/4	+	88	1	+	
035	and the state of t	A				3	101/0 83/0		84/0		H			regions broken visual
753		Ц				2	102/0 82/0 81/0	2/0/81	0/	-	X	$\overline{}$	90	
690		ত				3	0/811 0/2110/201	7/0 118	3/6		3	T	╂	
0.3.7	-	王				2	108/0 68/0	3/10 1/10	3/1		H	+	120	
038		H ·				3	124/0 42/0	210 4110	10/	-	77	_	-	-
033		5				S	25/2 39/0	0/04 0/0		-	RR		4.	
040	and the state of t	ス	>			3	1260 3810 3710	3/6 37	9		0 0	ACT	+	
041		¥	225	1,		-		12	0/41		A A	()		
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04.3		A				1-		7970	100		100		1	T
044		u		 		-		18	1					
1770				+		- -	+	alao	7/	-	X			
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		2				_		35/0	0,		BB	-	1—	
048		1	>	_		_	-	36/0	9		AA	AFT		
	وردوا والمراجعة		4			1				-				
7	13 19	The Section of the Se	57	31		37	43		49	និភ	61		67	75 76
***	, 7, , , , , , , , , , , , , ,	7	1	1	7	3	1	444	4444					-
0 CR 6					COFFEICENTS	EN → S					20.	DVAR (1)	IDVAR ((2) NDV
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TABLE IV - CONTINUED

DATA SET			DATA SE	DATA SELVICIN NOMBER	3011	CULLATION SUMMARY	ON SOMMY	IRY				_
	CONFIGURATION	SCHD.	a	S/VALUES	NO.	MACH	MACH NUMBERS (C	OR ALTERN	TERNATE INDEPENDENT VARIABLE	DE 4T CAL	HABLE)	
DENTIFIER		a B	ø		RUNS	1.96 3.48	8 4.96		STING COMB.	18 NOSE	125	
R99049		A 0	270		w	140/0 21/0	0 22/0		AA	CW7 F	0	
050		В			8	396 20/0	0/61 0		BB	S FWD	20	
150		Ð				04/0 77/0	0/8/0		1-1	******	:	
250		T				103/0 16/0	1/5/ 3		スズ	00	96	
0.20		ড			3	106/0120/0	2/61112		4	NQ.	001	
053		エ				0/1/0/50	10/0			DN	120	
054		H				123/0 33/0 32/0	032/0		00		140	
05.5		<u>.</u>			3	122/0/30/0/31/0	031/0		88	_	071	
056		メ	>		3	121/0 29/	29/0 28/0		AA		20	
057		A	315		-		23/0		AA			
926		8					24/0		RR		L	
059		D			_		73/0			+		
070	The second secon	<u></u>					74/0		XX	9	06	
190		エ			_		72/0		TT	NA	120	Г
0.62		Н			_		26/0		22	AFT	041	
		5			_		25/6		BB		J:3/	
V 064		× ×	-				27/0		AA		081	
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30 ac				COEFFICENTS	ENTS				ia.	DVAR (1)	101VAR (2)	N C
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TABLE IV. Continued

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	-						T	EST	RUI	וטא וי	MBE	₹5						8	>G Z	
DATE: 5 MARCH 1974	TERNATE INDEPENDENT VARIABLE	FWD	BB FWD 20	09 AN II	XX OF 90	JON	II DN 120	1	BB AFT 160	AFT				4		AMBRITAN AND AND AND AND AND AND AND AND AND A	AND THE RESIDENCE AND THE PROPERTY OF THE PROP	61 67 7	1DVAR (1) IDVAR (2)	
ABER COLLATION SUMMARY	OR AL	14.7/6	1486	1596 1556	3 1596 1546 1570	152/0	1 1536	0/151	1 150/0	149/6			3 141/0 141/0 145/0	-	+-			37 43 49 55	 COEFFICENTS	
SFC TWT 583	CONFIGURATION & STATE	TZ (SAME AS TI	+	PRCTUBERANCES		GRIT)			0.78	V 079 V			R99065 TZ (SAME S TZ D 0 0	V ABOVE, BUT	SIDE-MOUNTED	,		7 13 19 25 31	 CC SA OR B	SCHEDIILES

TABLE V. 0.003-SCALE 324-INCH ET REFERENCE DIMENSIONS

DIMENSION	FULL SCALE	MODEL SCALE
deference Area, S _{ref} (cross-sectional area of ET)	572.555 ft ²	0.742 in. ²
Reference Length, l _{ref} (ET diameter)	324 in.	0.972 in.
Reference Span, b _{ref} (ET diameter)	324 in.	0.972 in.
Moment Reference Point, MRP (dry weight c.g.)		
XMRP (from nose) YMRP ZMRP	1086.4 in. 0 0	3.259 in. 0 0
Base Area, A _b (cross-sectional area of ET)	572.555 ft ²	0.742 in ²

TABLE VI. MOMENT TRANSFER DISTANCES

MCDEL ARRANGEMENT	TRANSFER DISTANCE								
TARGET GETTE, VI	XMRP	YMRP	ZMRP						
Tail-mounted (α = -10° to 100°)	0.243 upstream of BMC	C	0						
Nose-mounted (\alpha = 80° to 190°)	0.792 upstream of BMC	o	0						
Side-mounted (\alpha = 50° to 100°)	0.320 downstream of BMC	0	0						

NOTE: Distances are based on actual model measurements

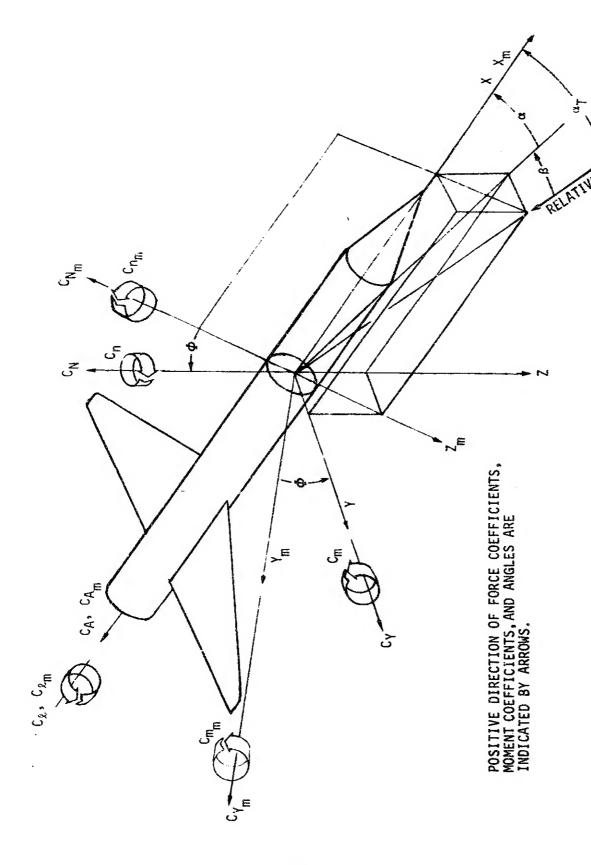
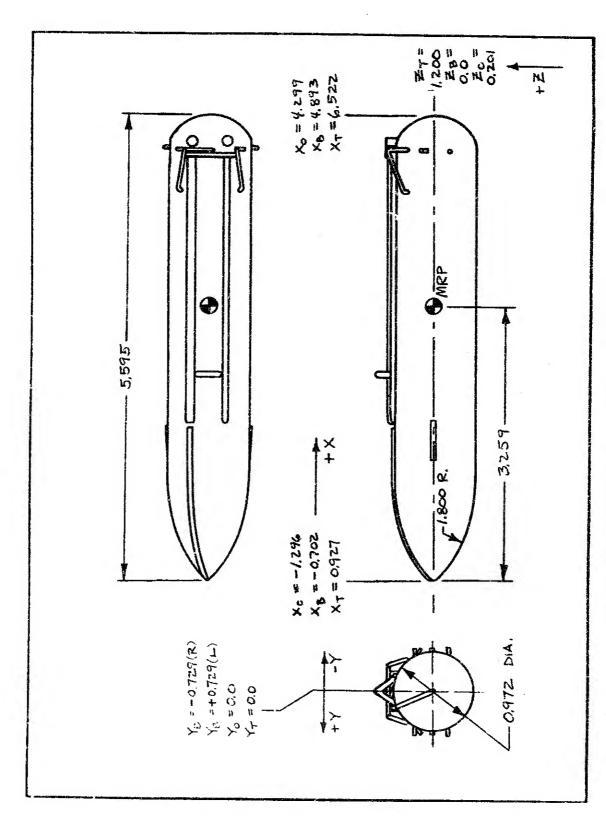


Figure 1. - Body and Missile Axis Systems



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GENERAL ARRANGEMENT OF MSFC MODEL NO. 458, CONFIGURATION TI Figure 2.

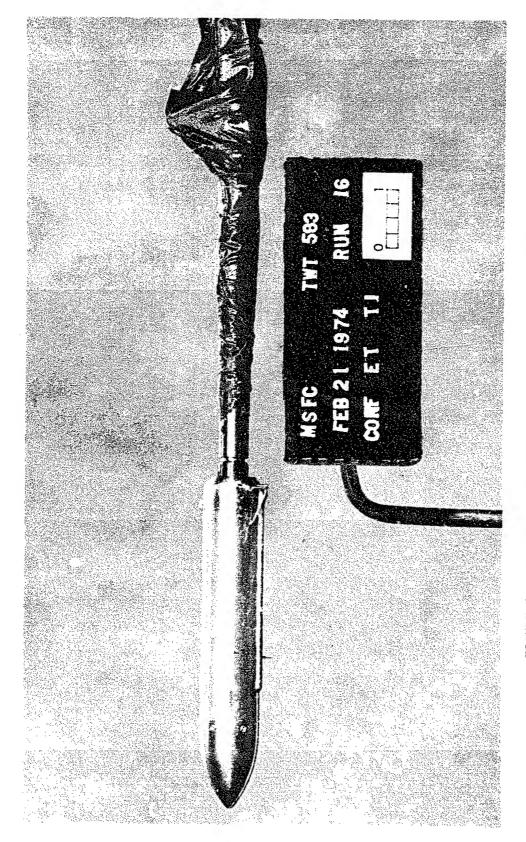


FIGURE 3. EXTERNAL TANK MODEL NO. 458 AT $\phi = 180^{\circ}$, STING COMBINATION AA, NOSE FORWARD

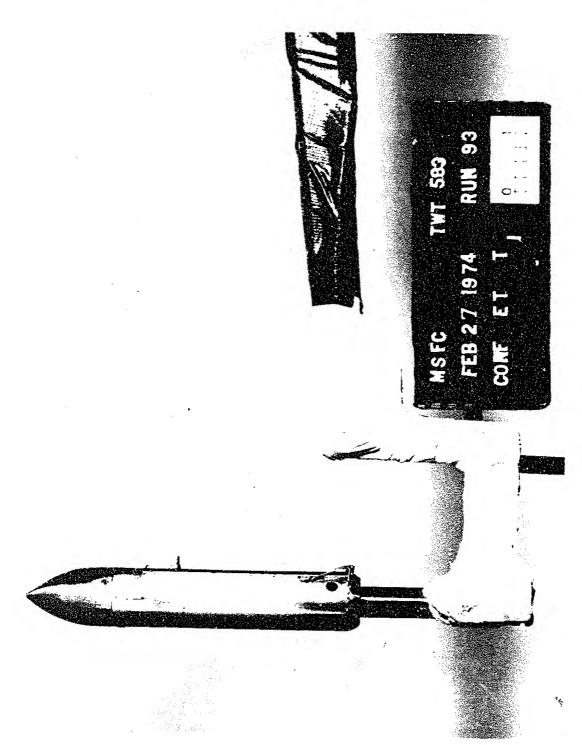


FIGURE 4. EXTERNAL TANK MODEL NO. 458 AT $\phi=0$ °, STING COMBINATION KK, NOSE UP

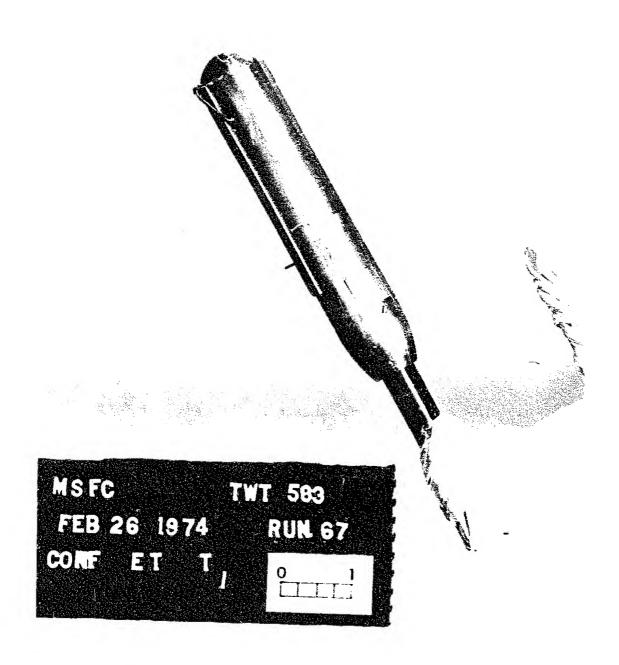


FIGURE 5. EXTERNAL TANK MODEL NO. 458 AT $z=180^{\circ}$, STING COMBINATION II, NOSE DOWN

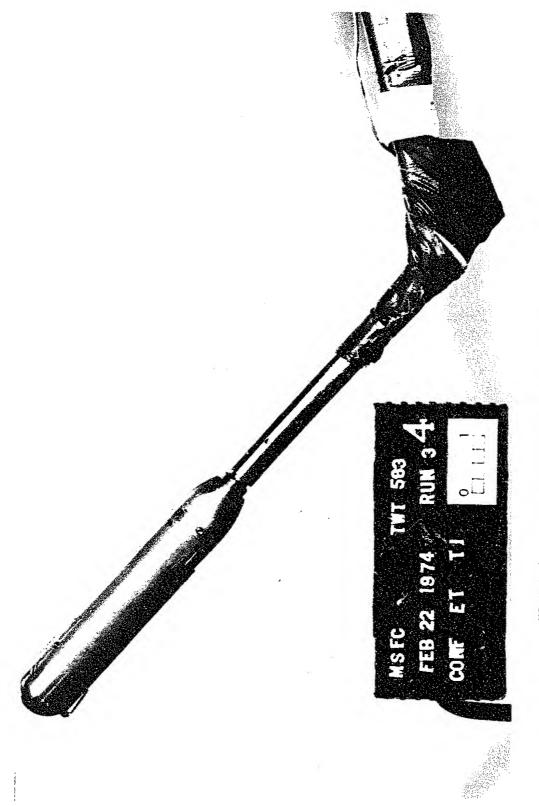


FIGURE 6. EXTERNAL TANK MODEL NO. 458 AT $\Phi = 225^{\circ}$, STING COMBINATION CC, NOSE AFT

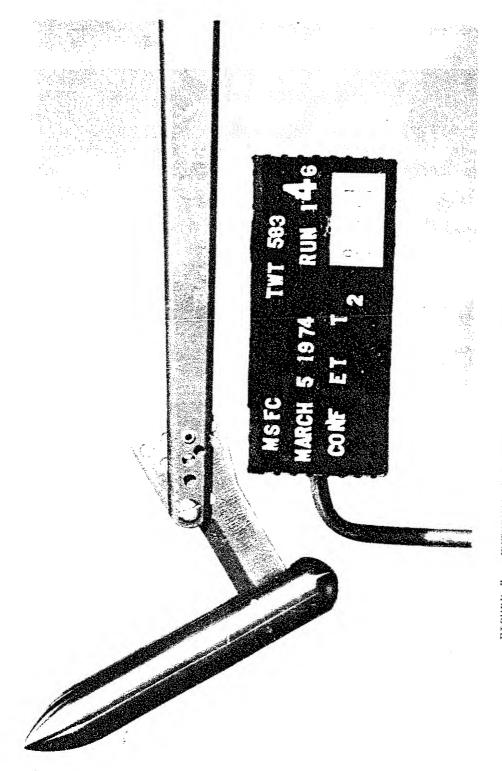
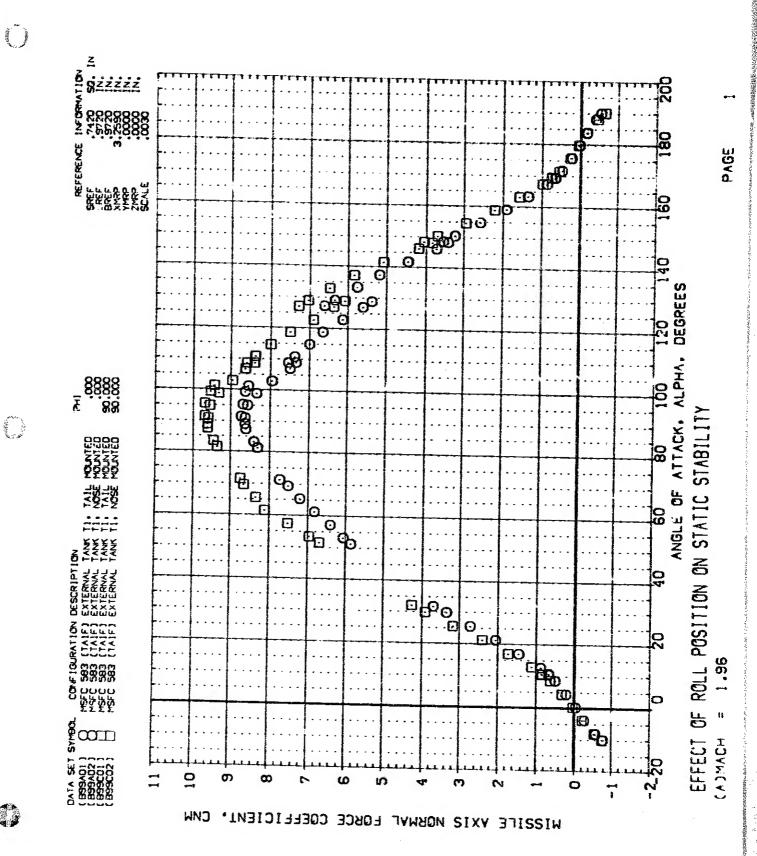
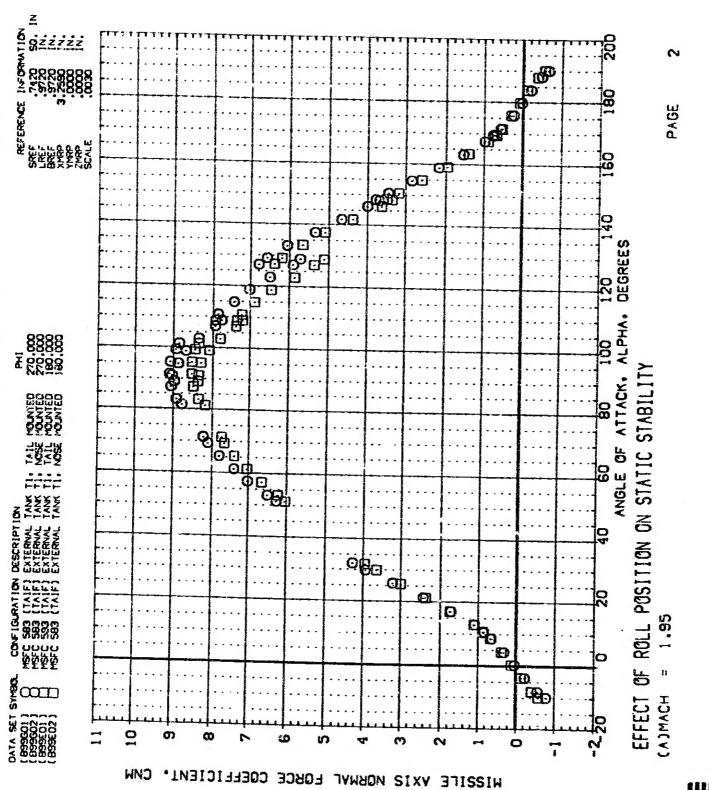
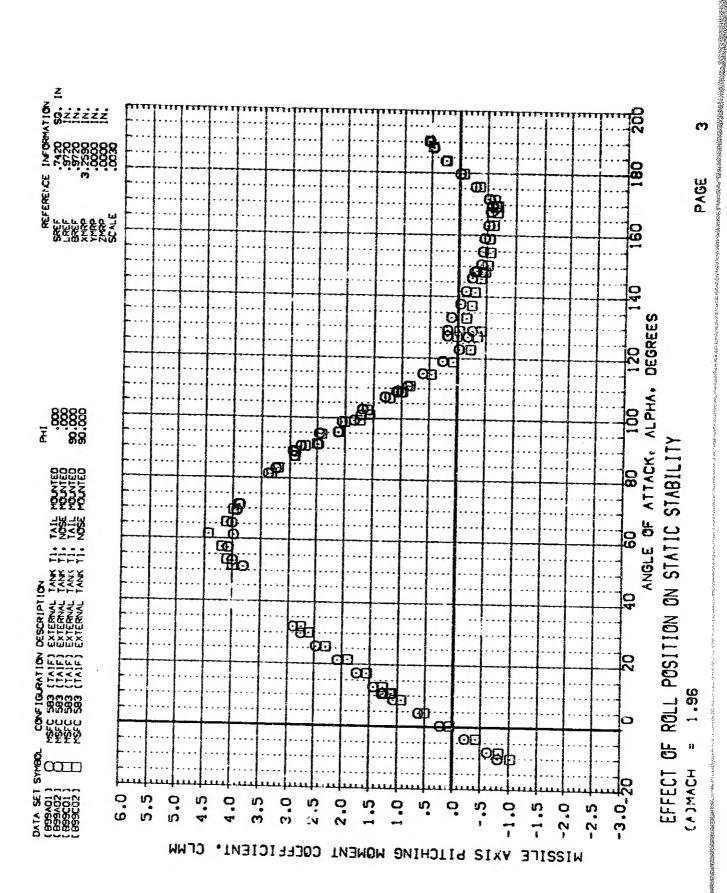


FIGURE 7. EXTERNAL TANK MODEL NO. 458, CLEAN CONFIGURATION, STING COMBINATION DD, NOSE UP

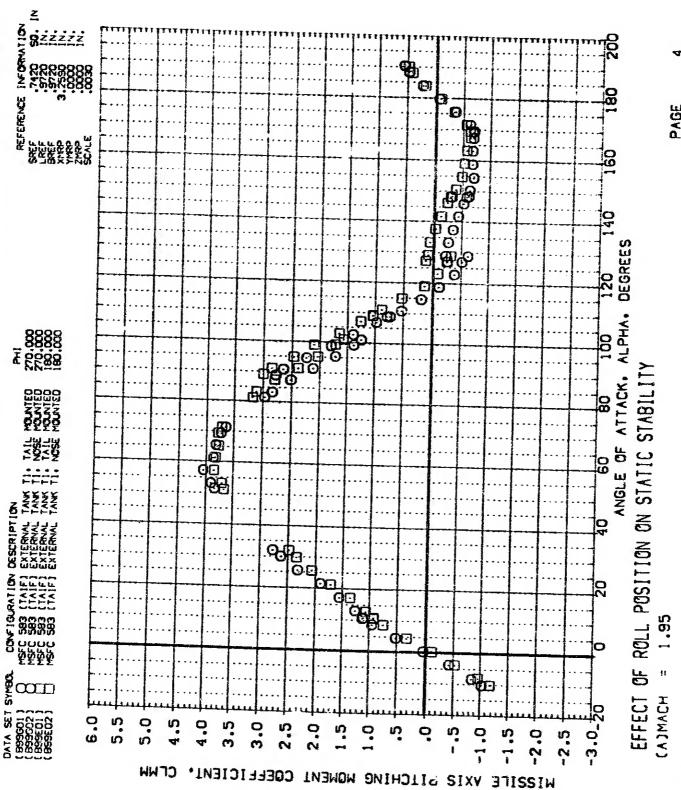
DATA FIGURES



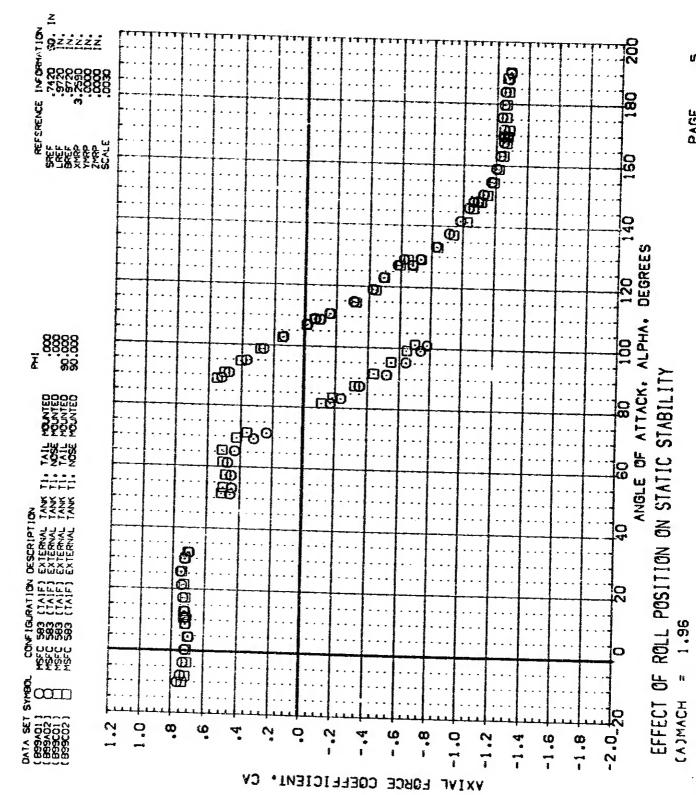


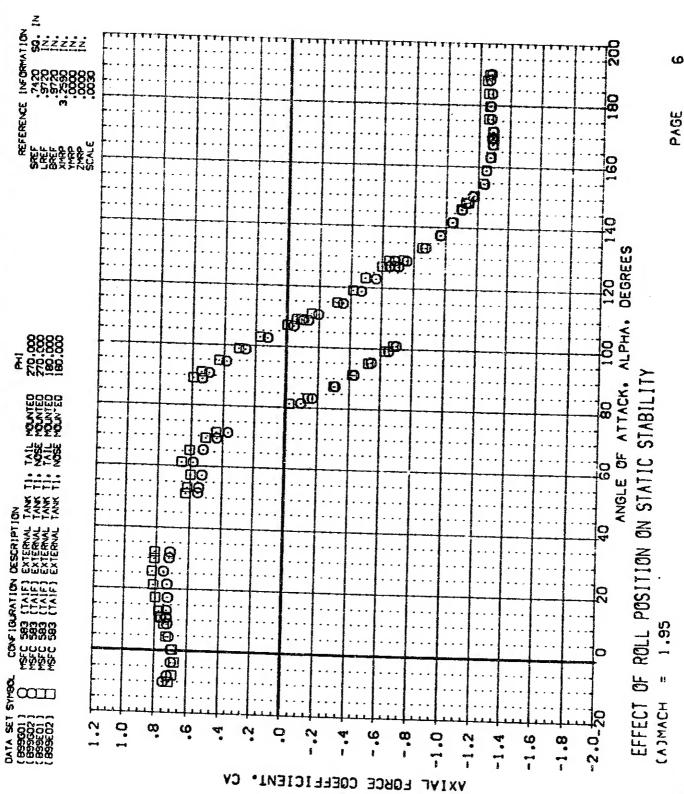


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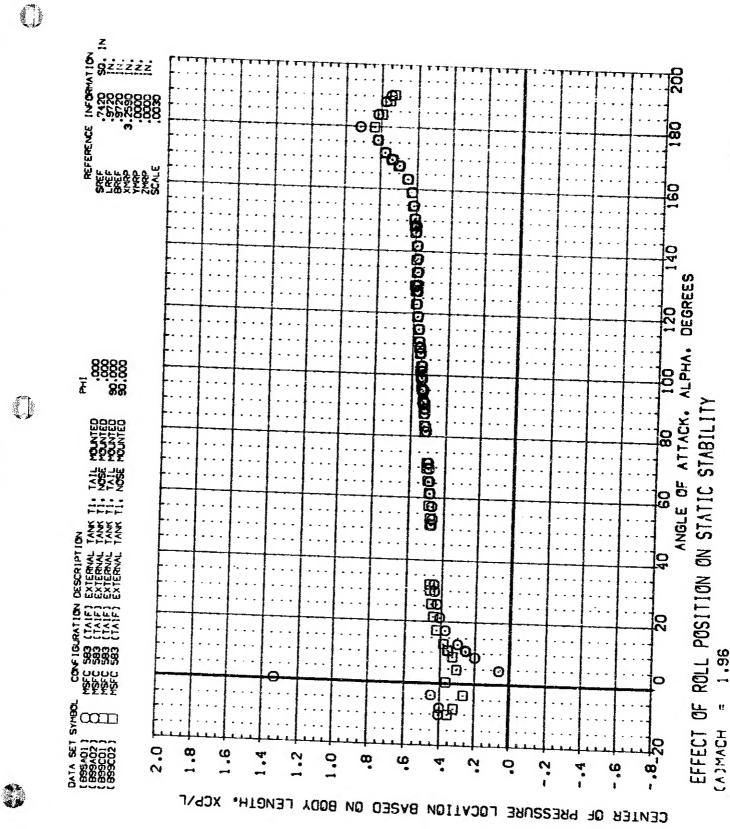


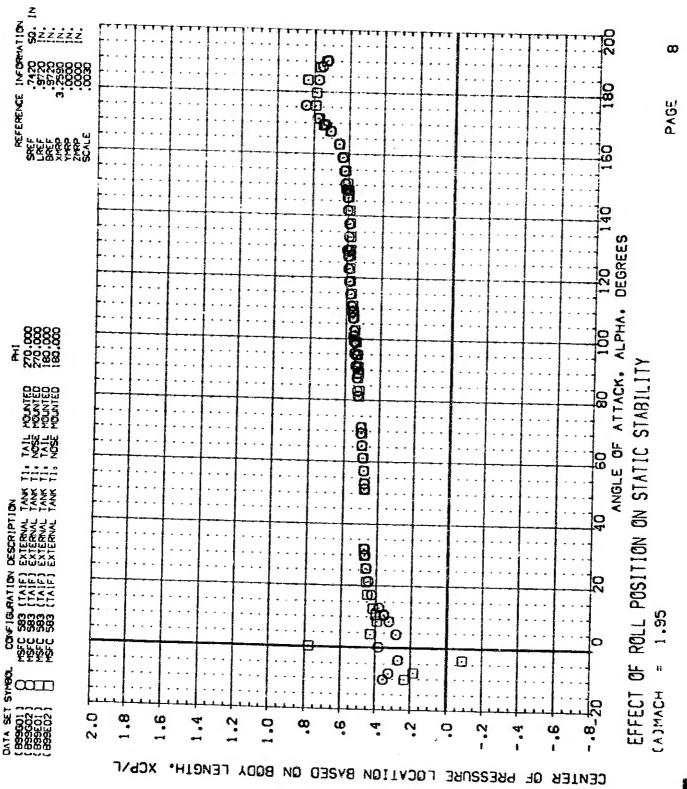
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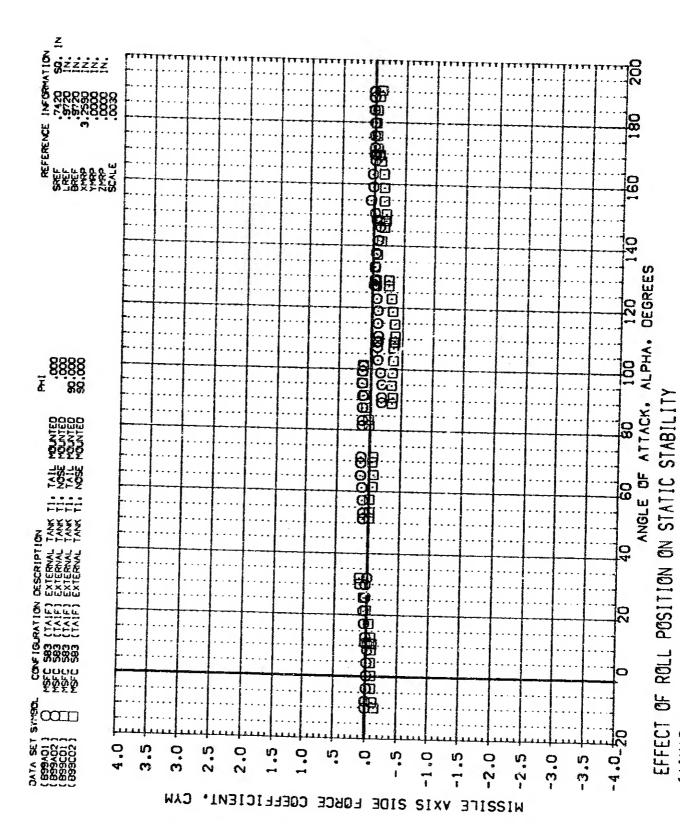




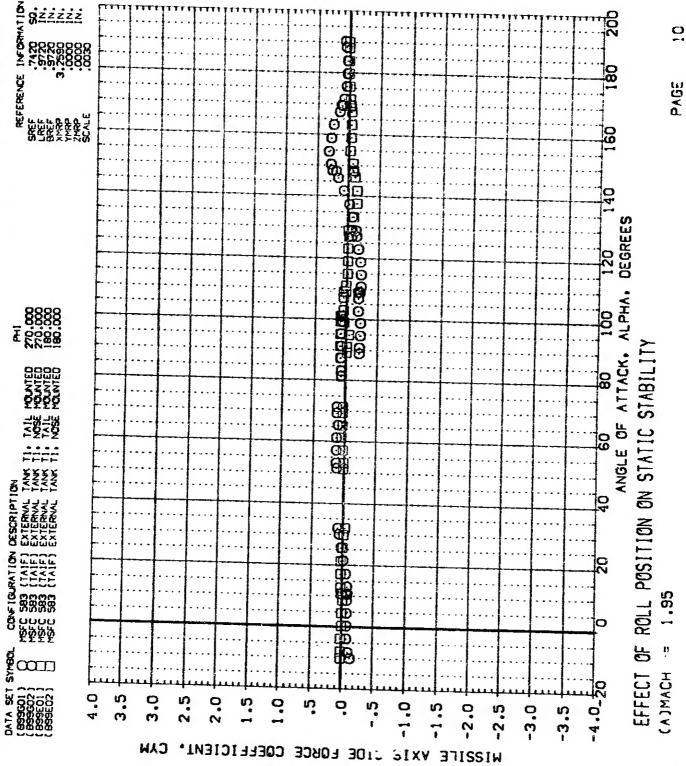




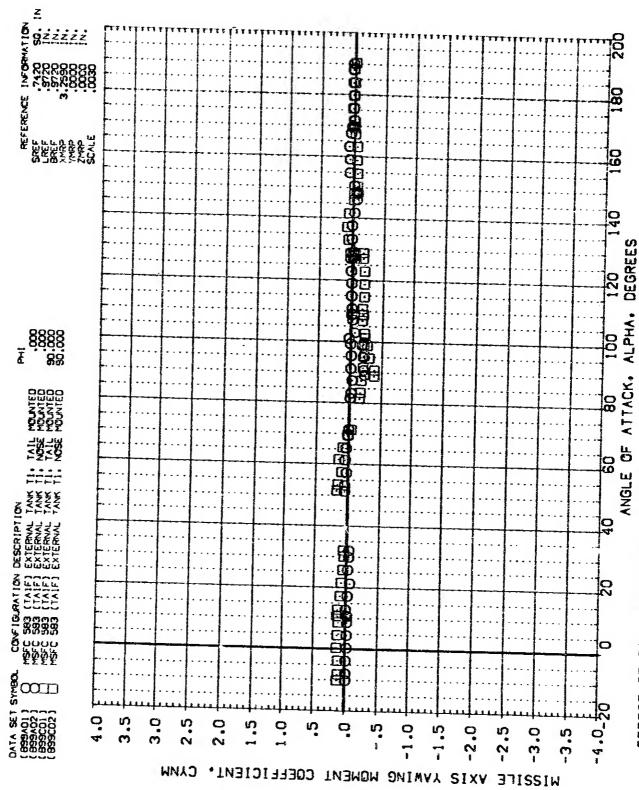
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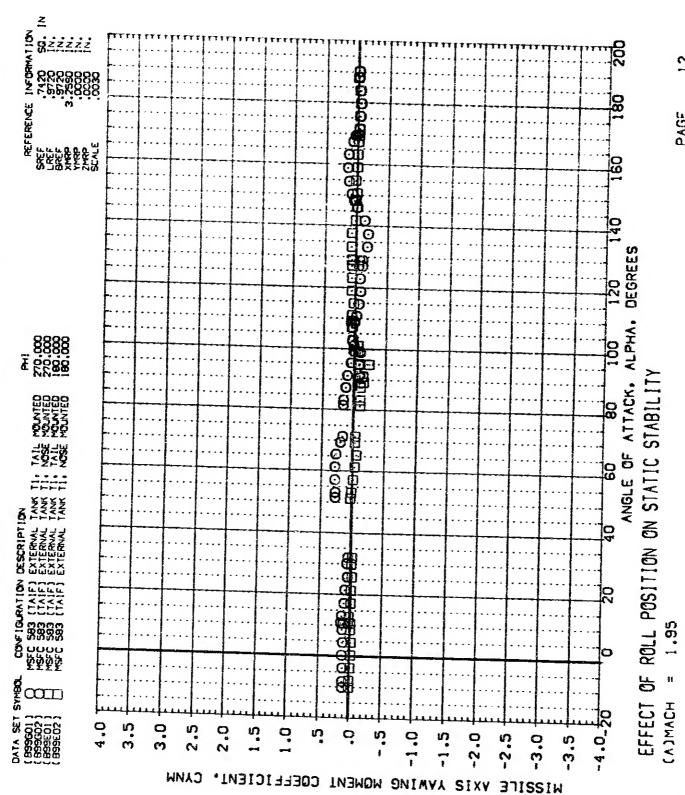


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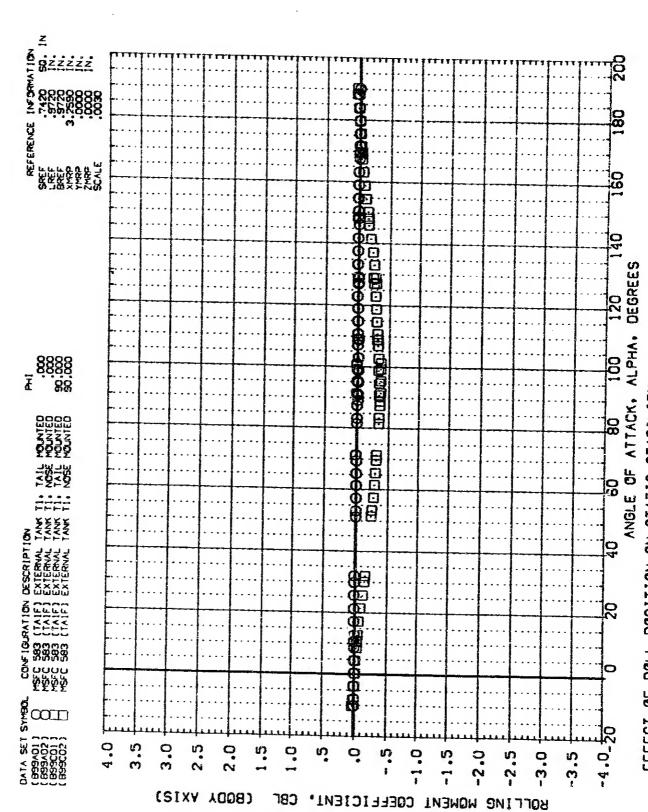


EFFECT OF ROLL POSITION ON STATIC STABILITY

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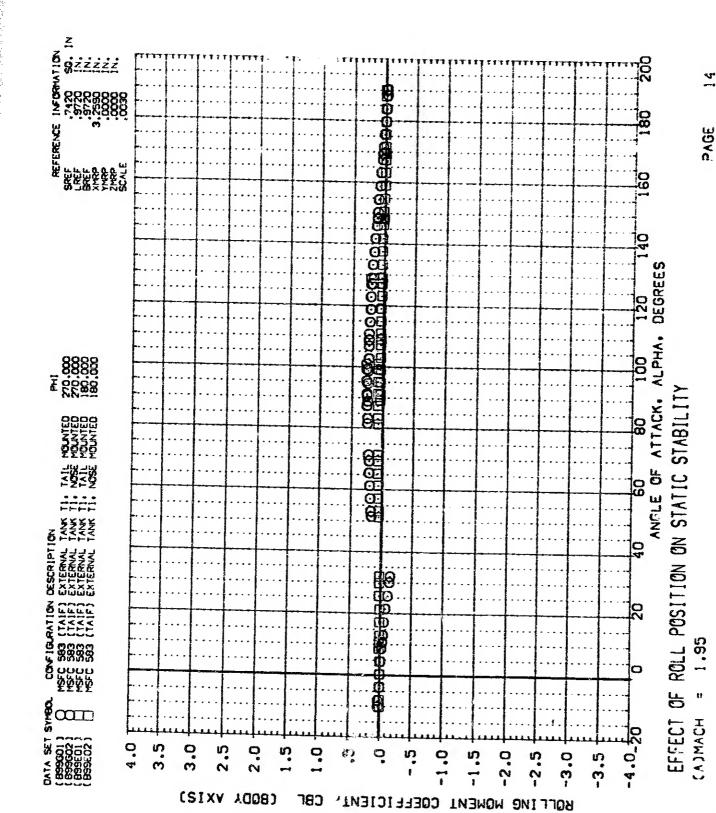




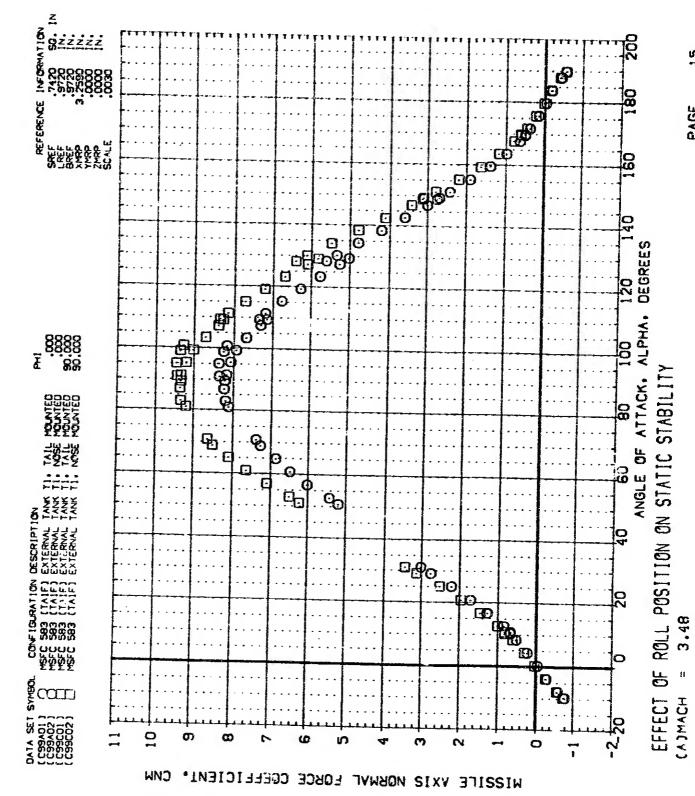
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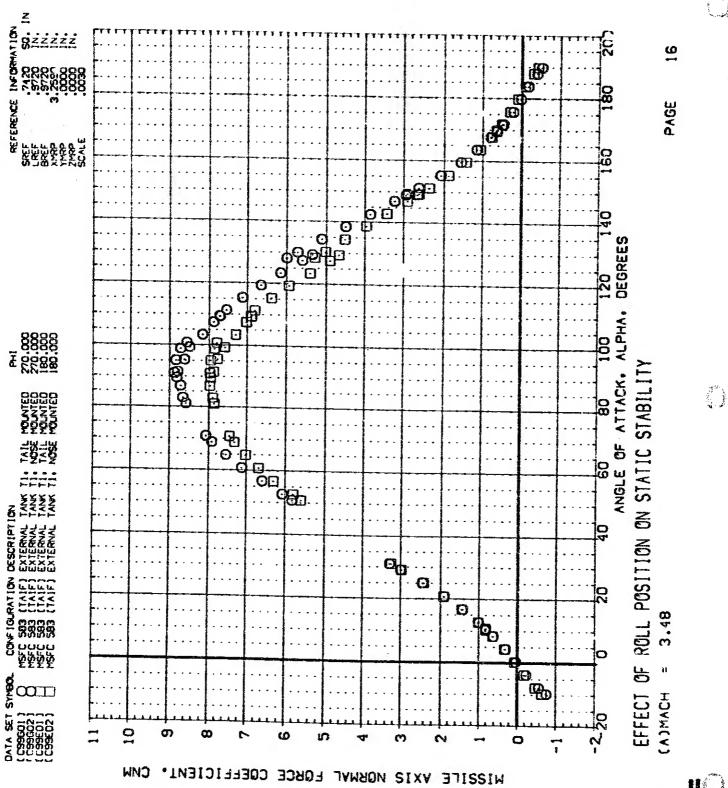
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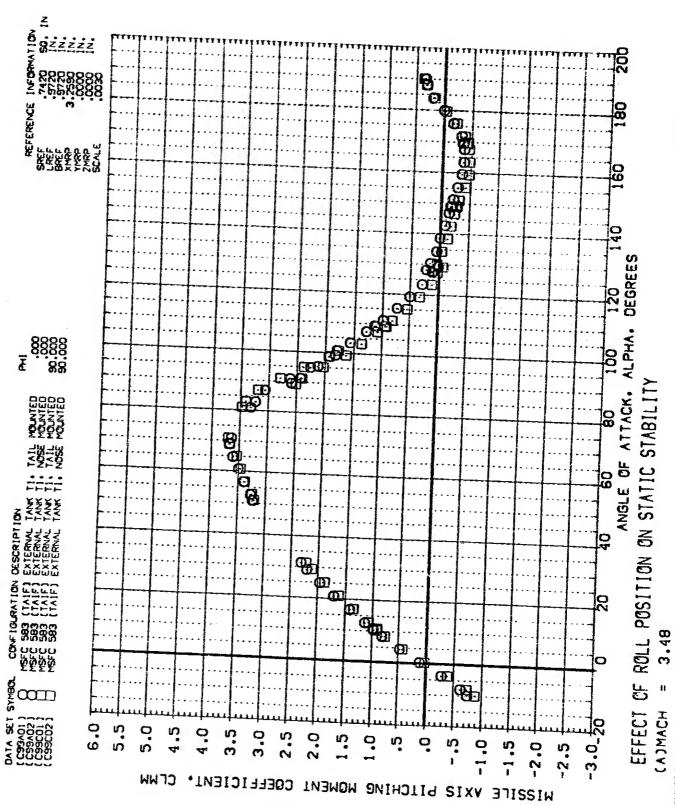




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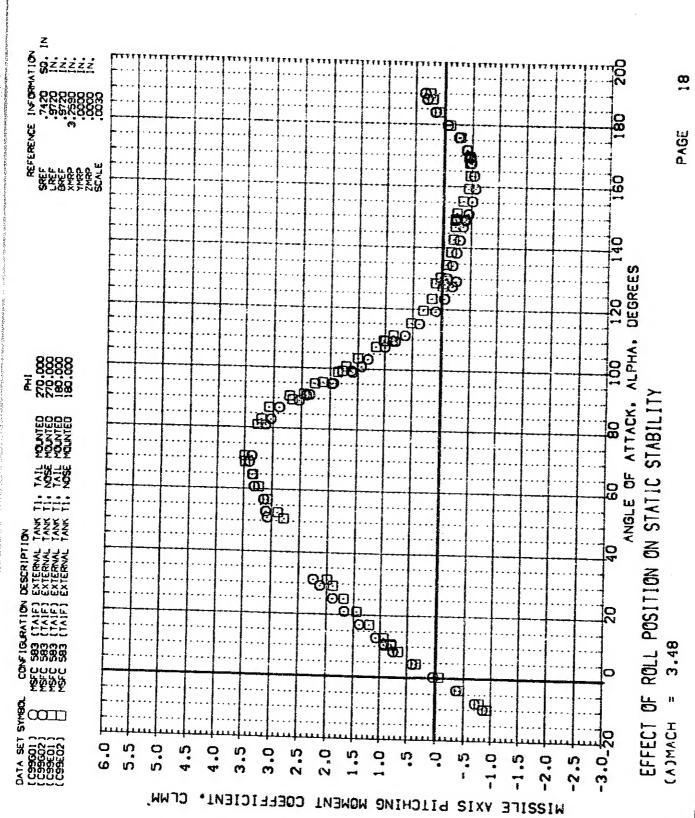




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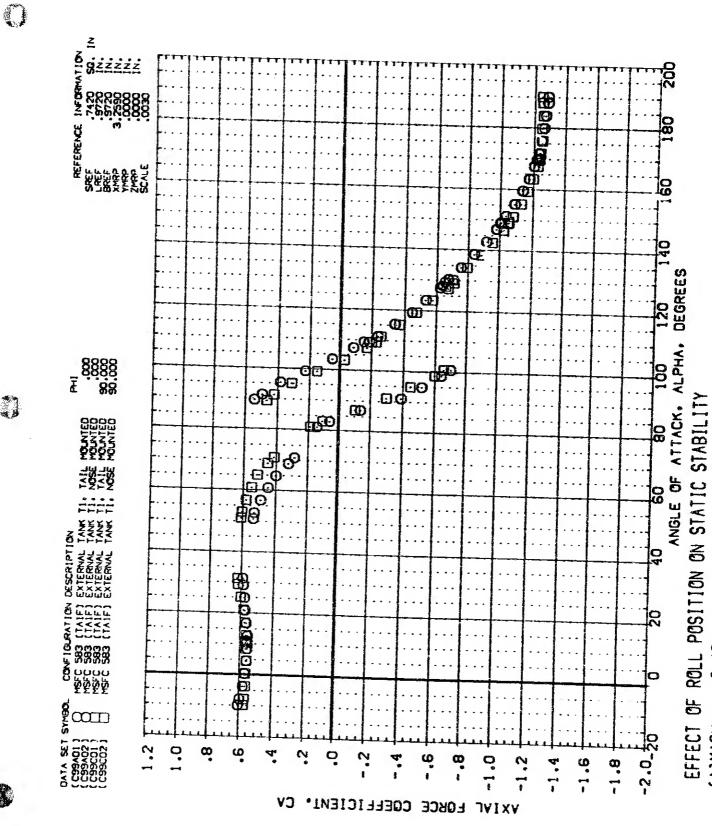
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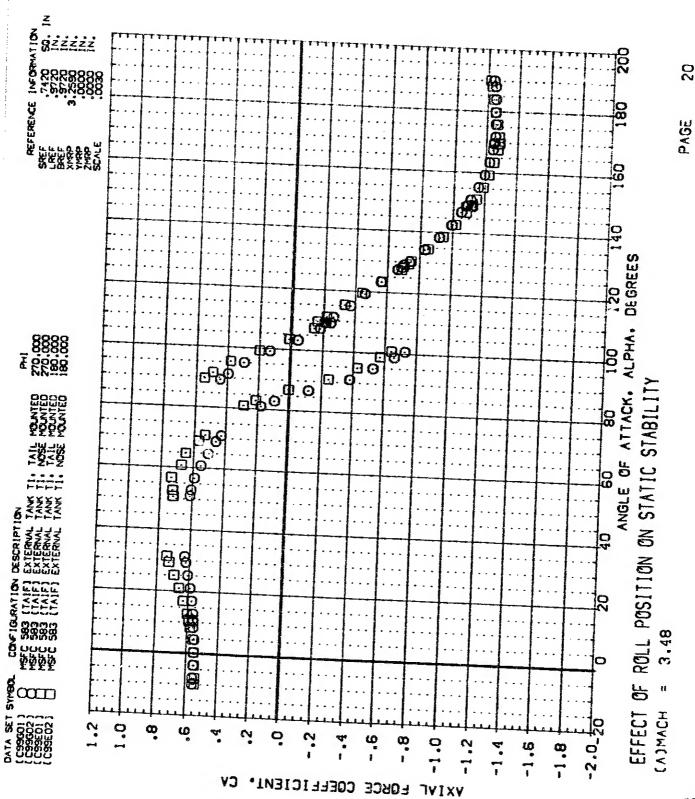




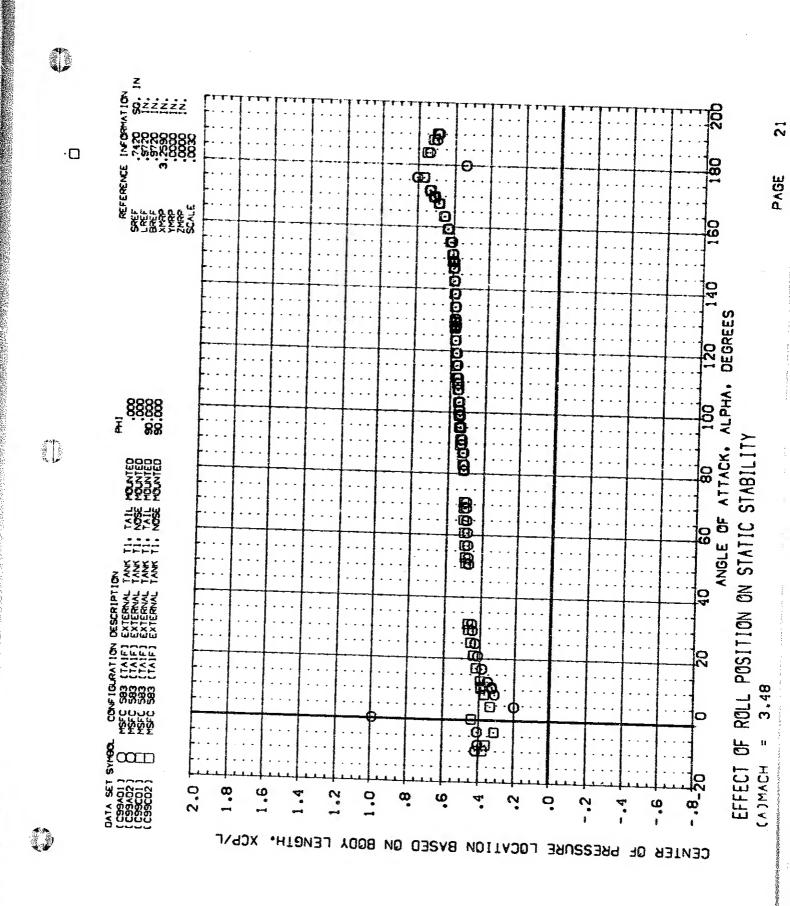
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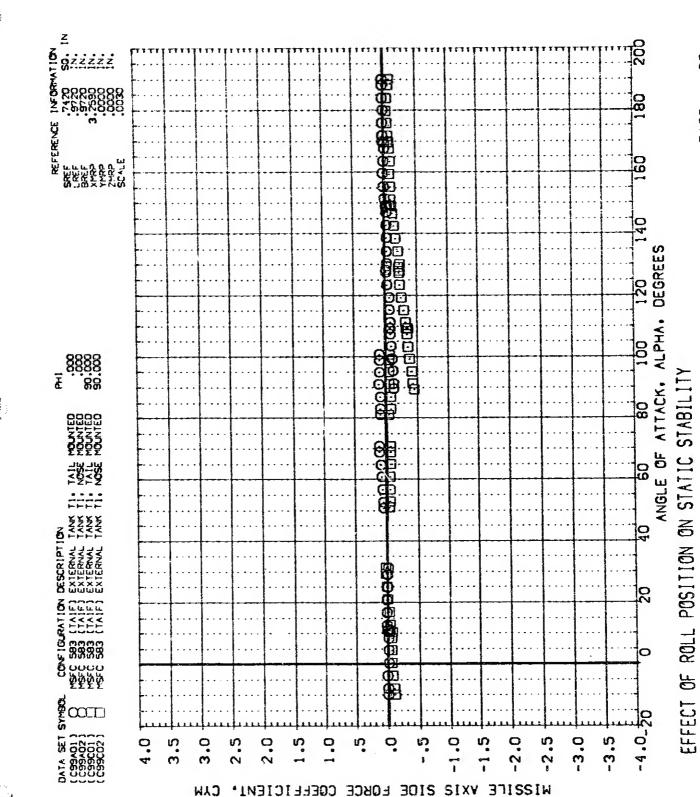
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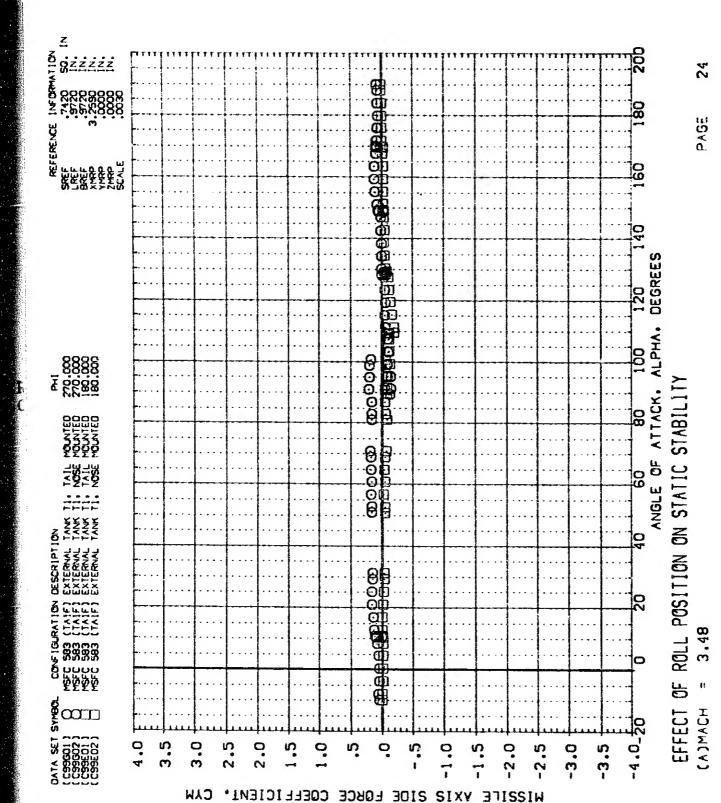
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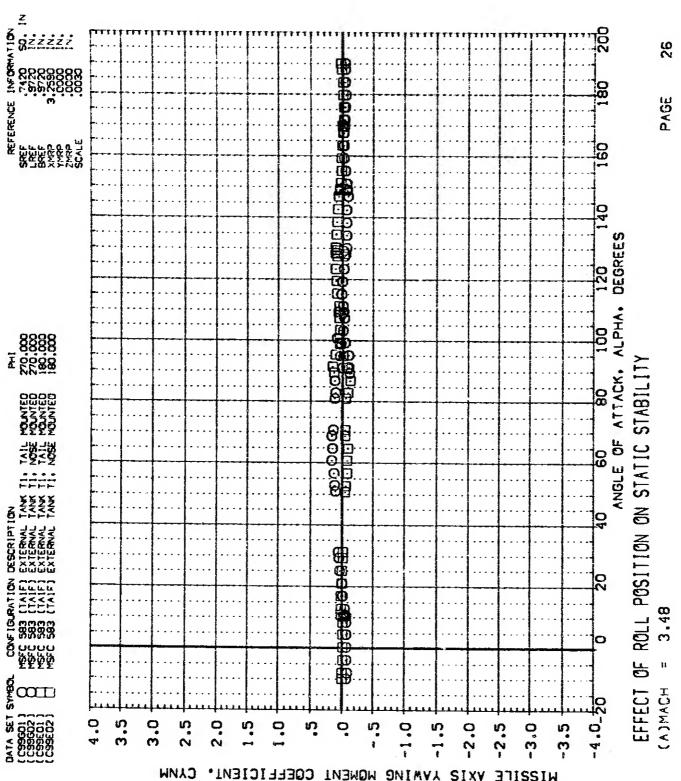
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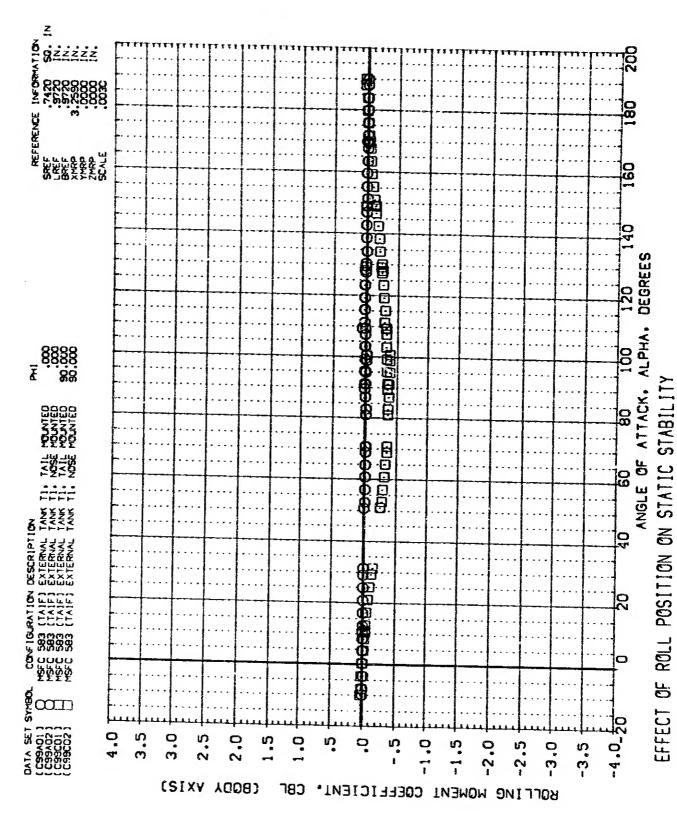
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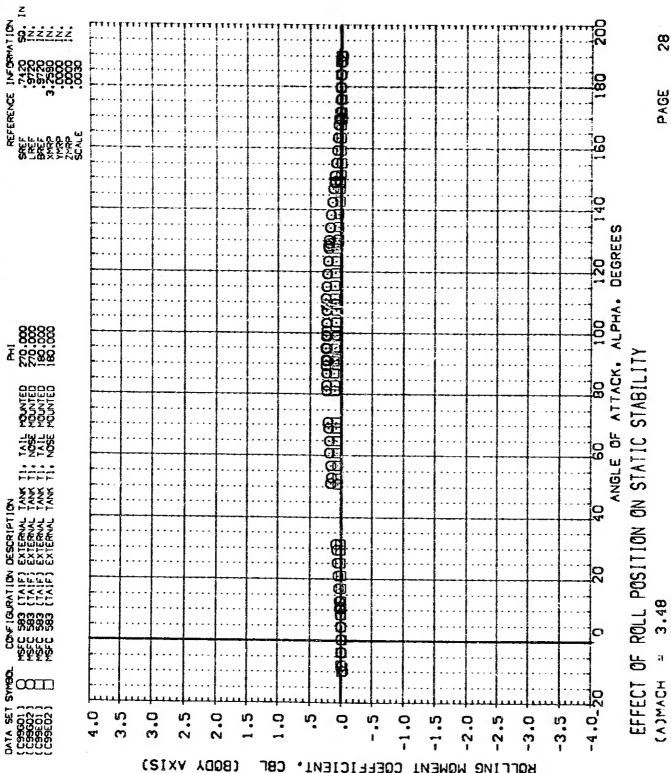




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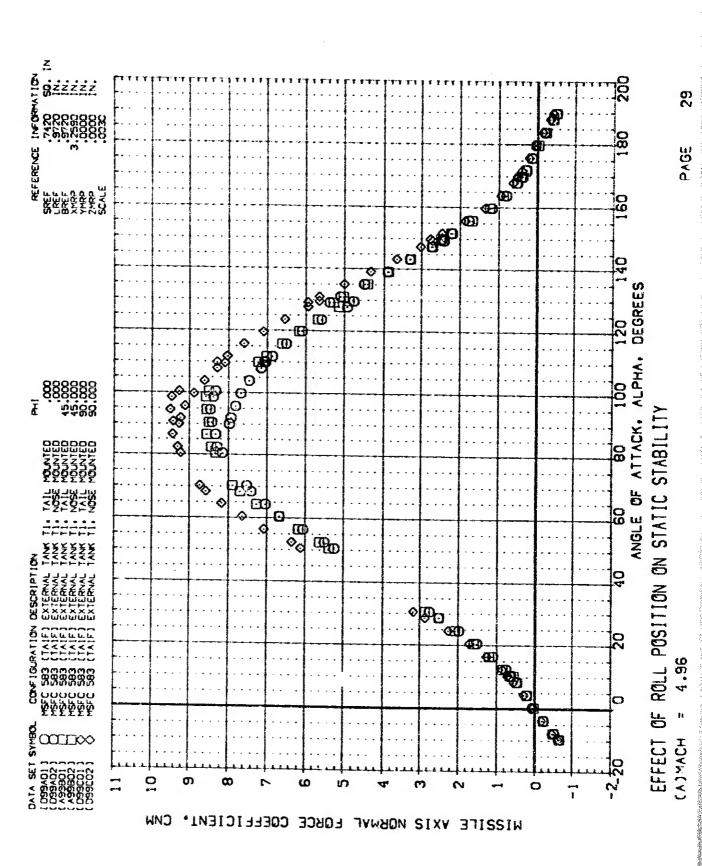


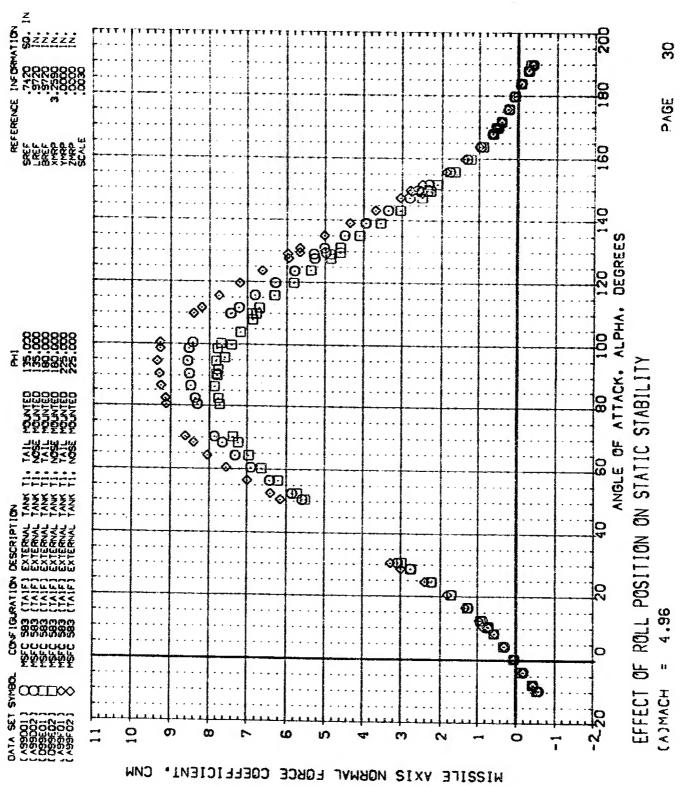
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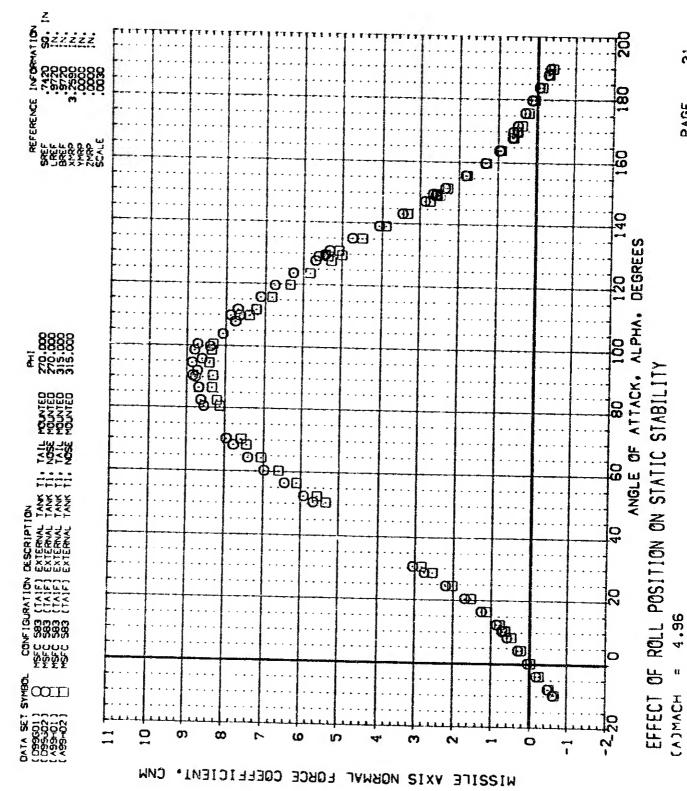
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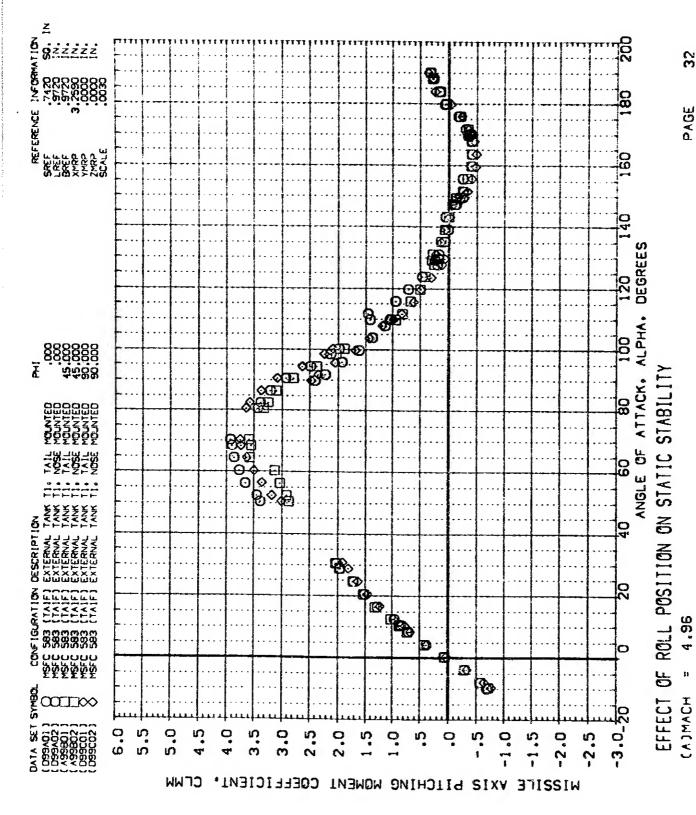
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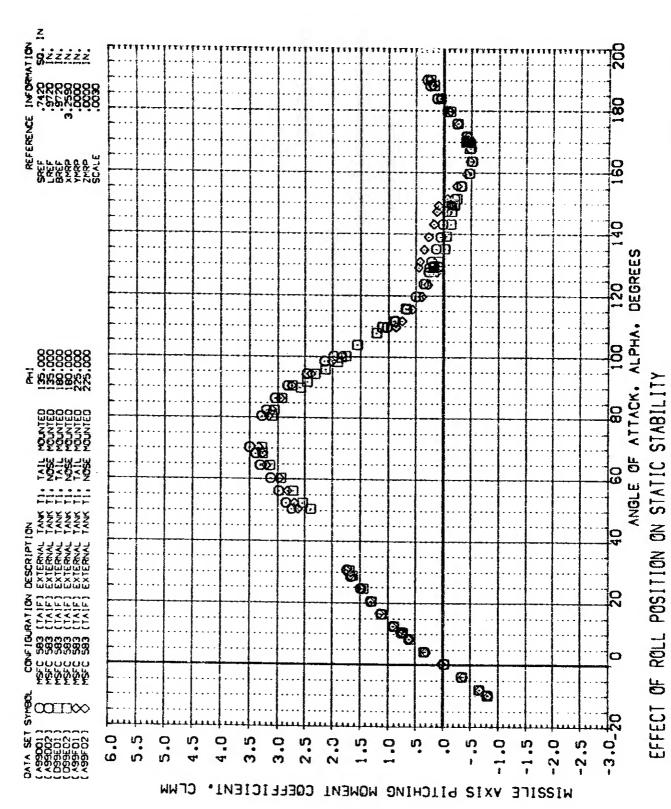






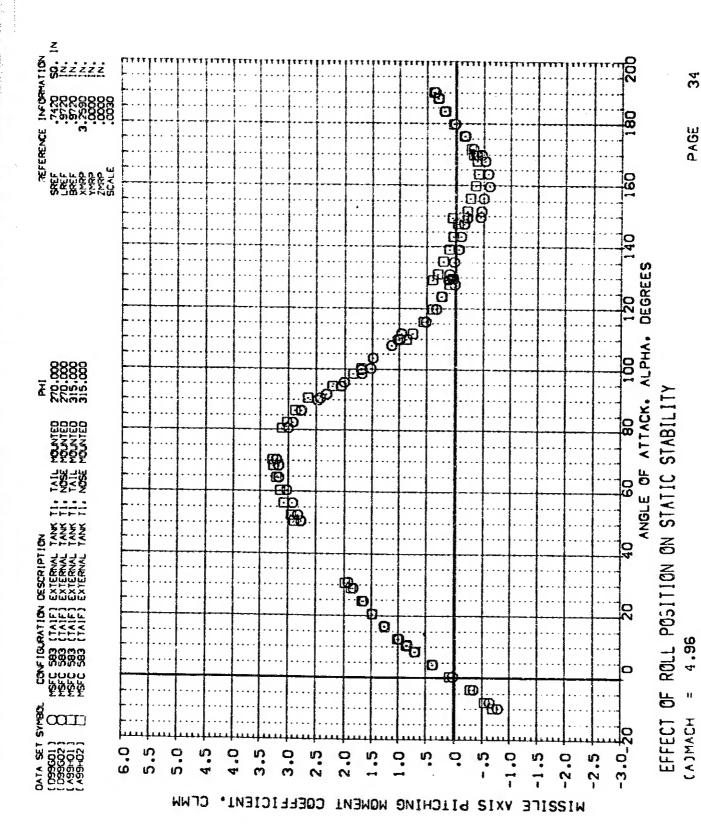
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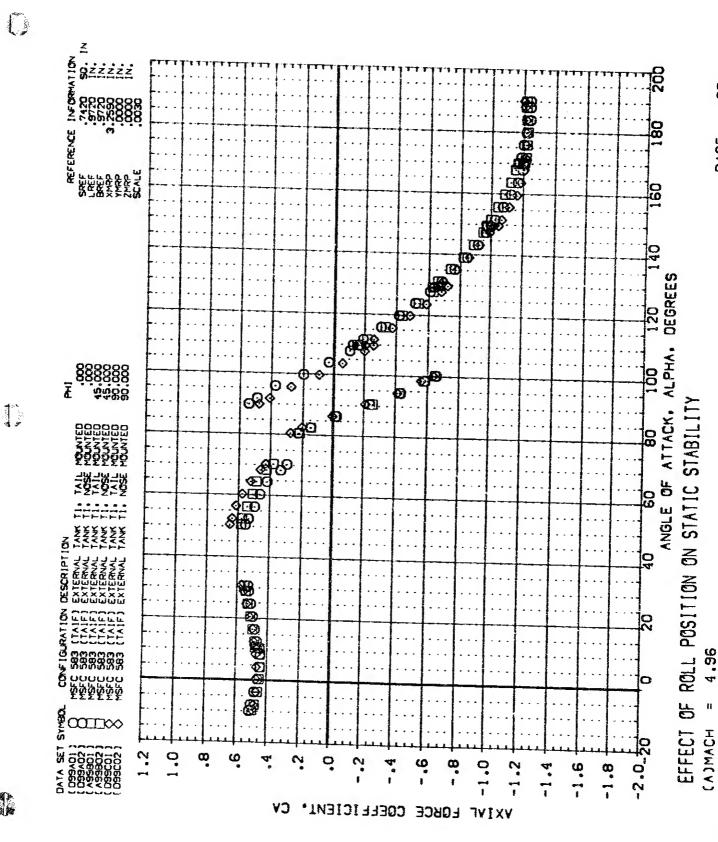
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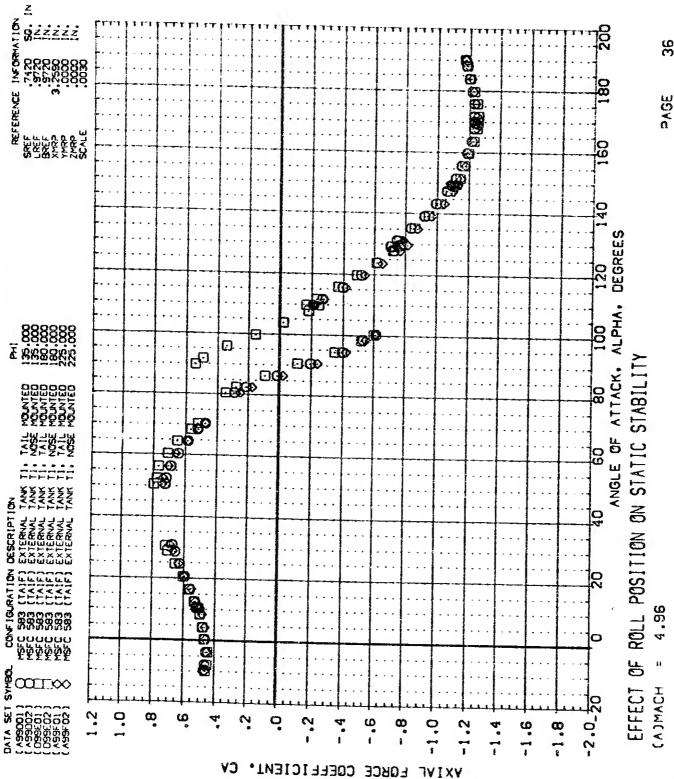




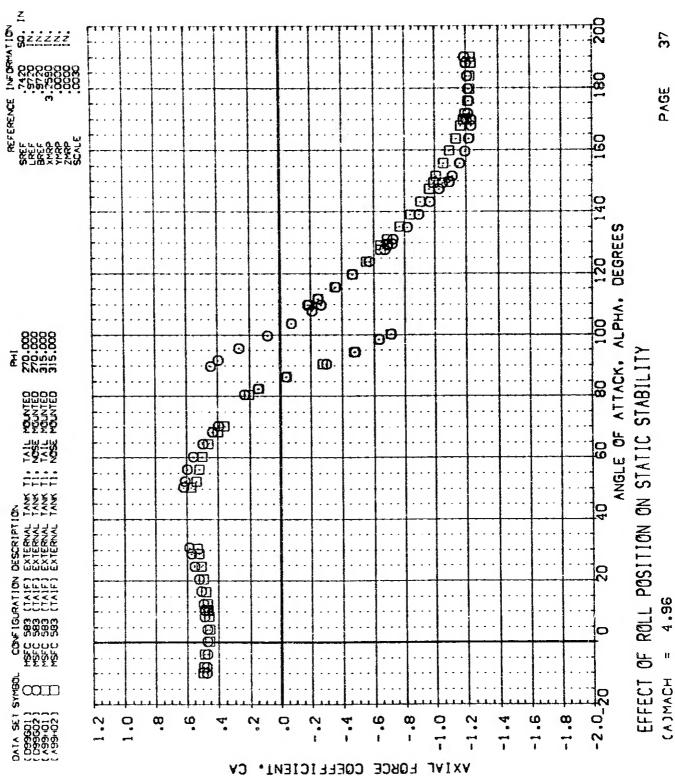
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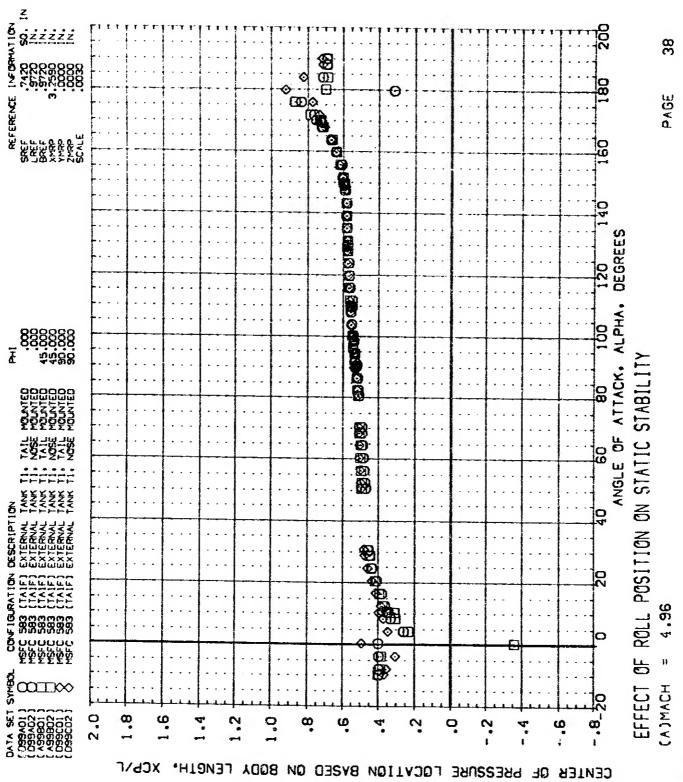






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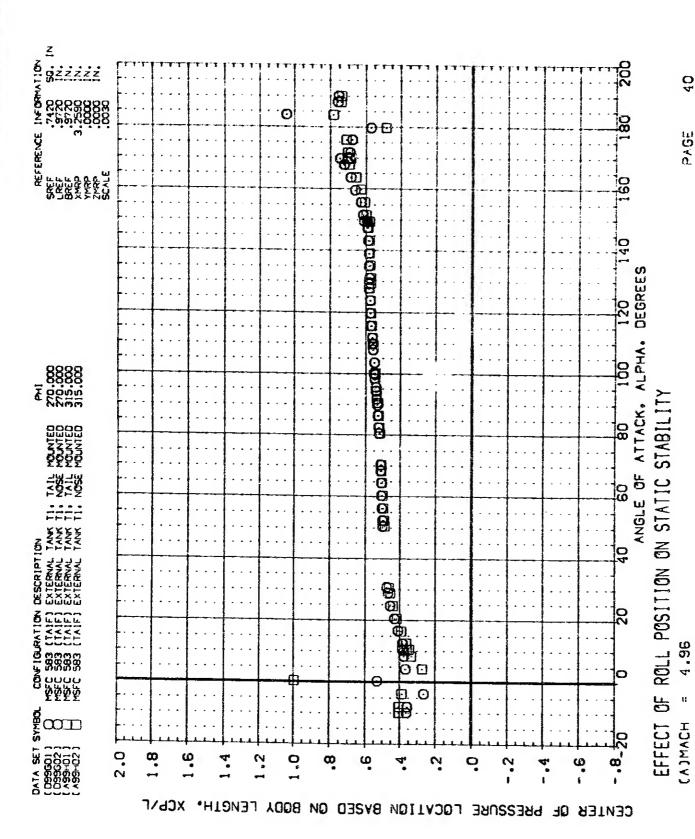




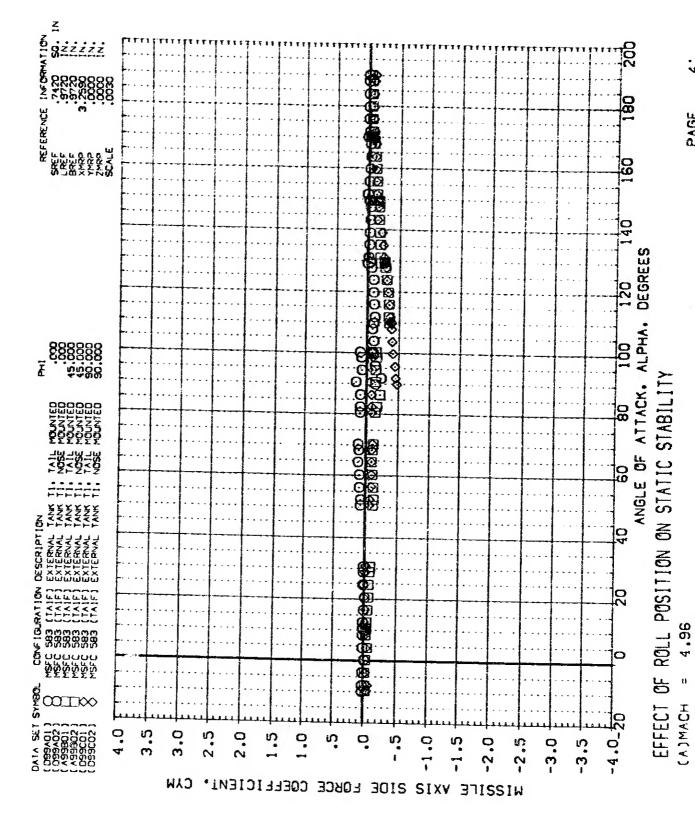
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EFFECT OF ROLL POSITION ON STATIC STABILITY

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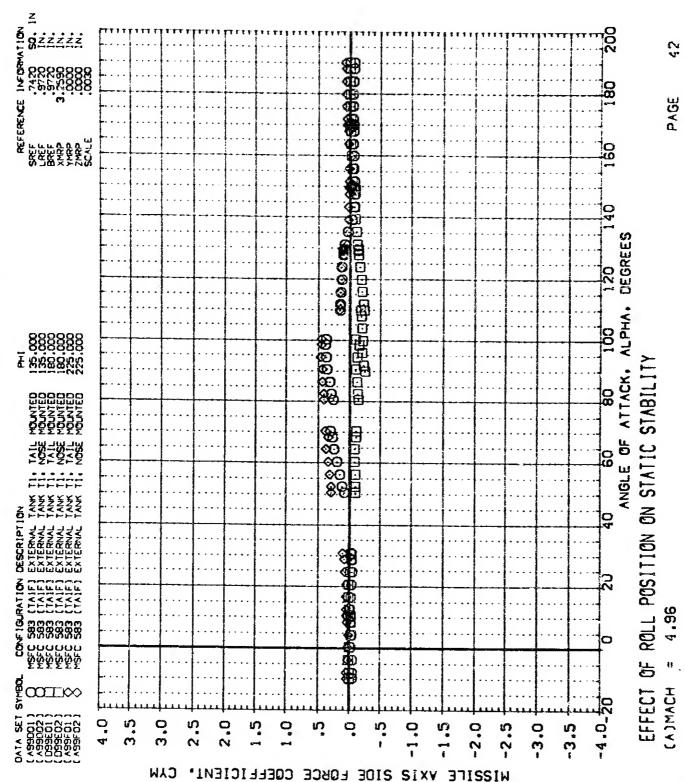




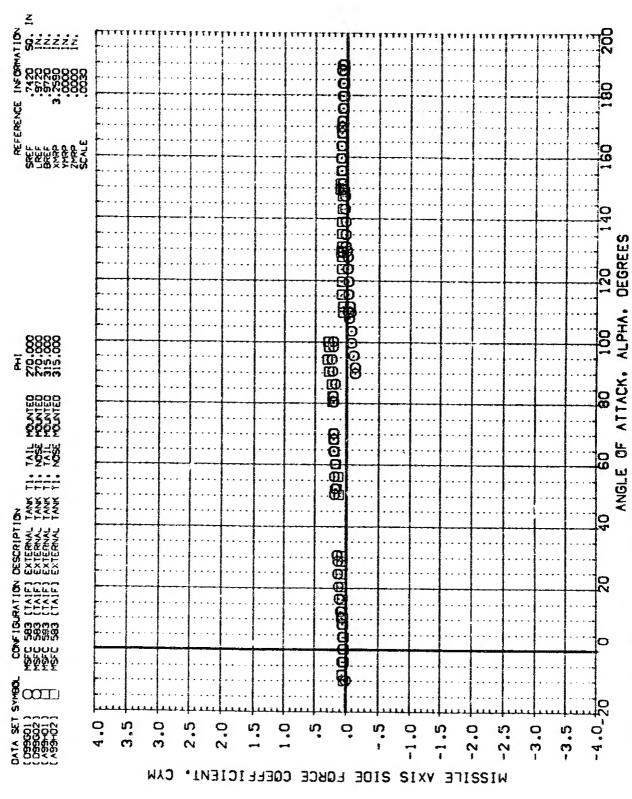


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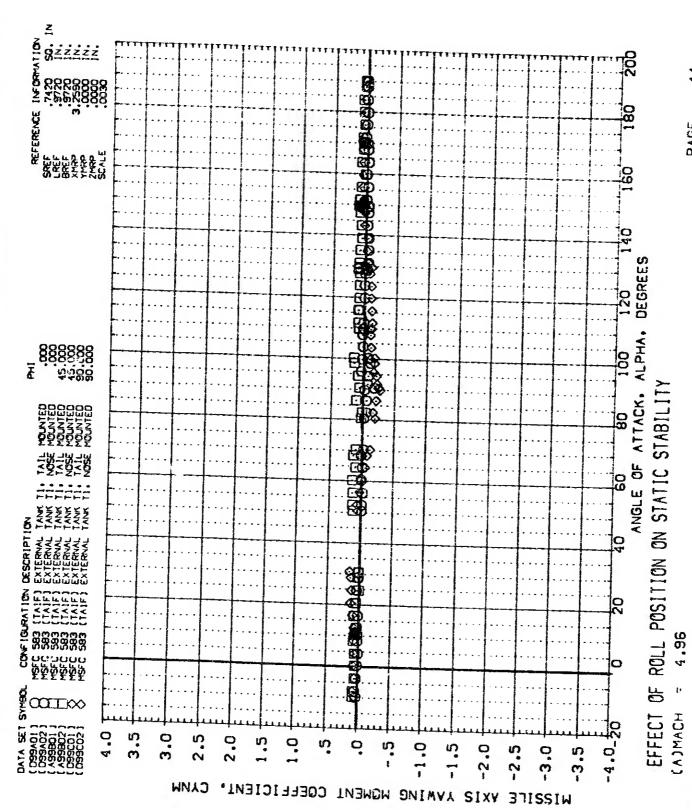




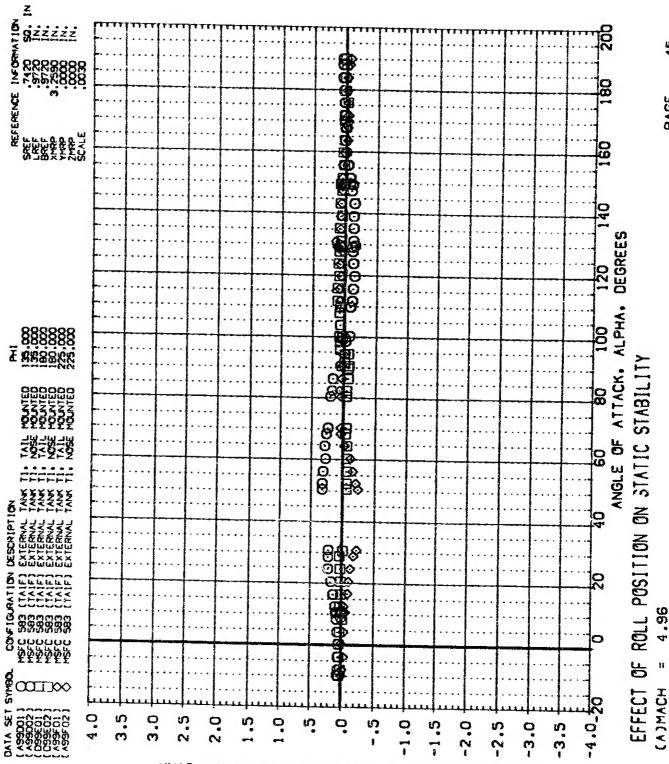
EFFECT OF ROLL POSITION ON STATIC STABILITY

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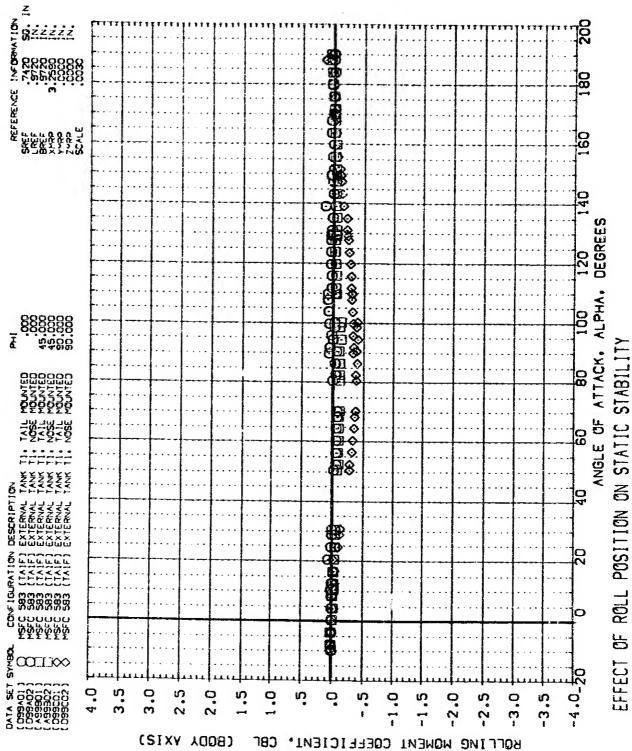
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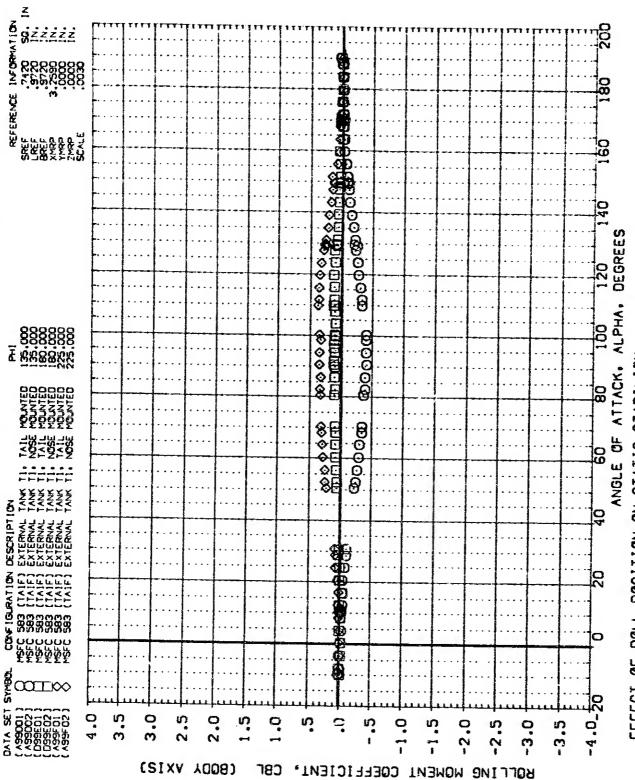
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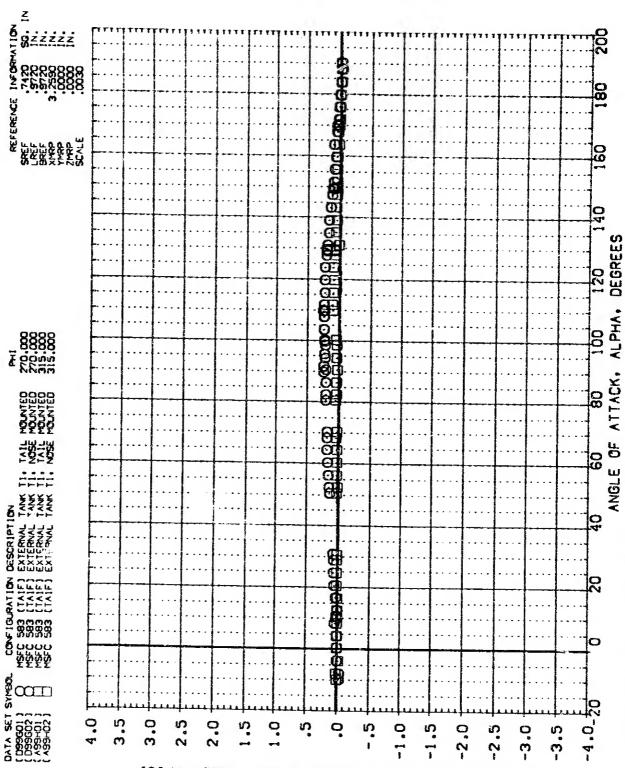
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EFFECT OF ROLL POSITION ON STATIC STABILITY

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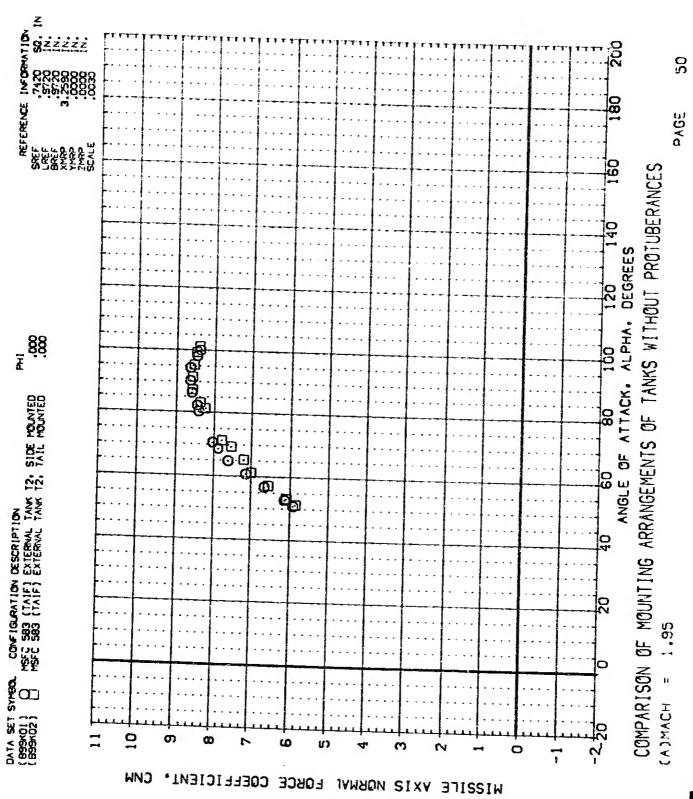
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EFFECT OF ROLL POSITION ON STATIC STABILITY CA JMACH

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AXIS NORMAL FORCE COEFFICIENT.

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是是是是这个人,我们就是这种,我们就是这种,我们是是这种,我们是不是一个人,也不是是一个人,也是是是一个人,也是是是是一种,我们也可以是一个人,也是一个人,也是

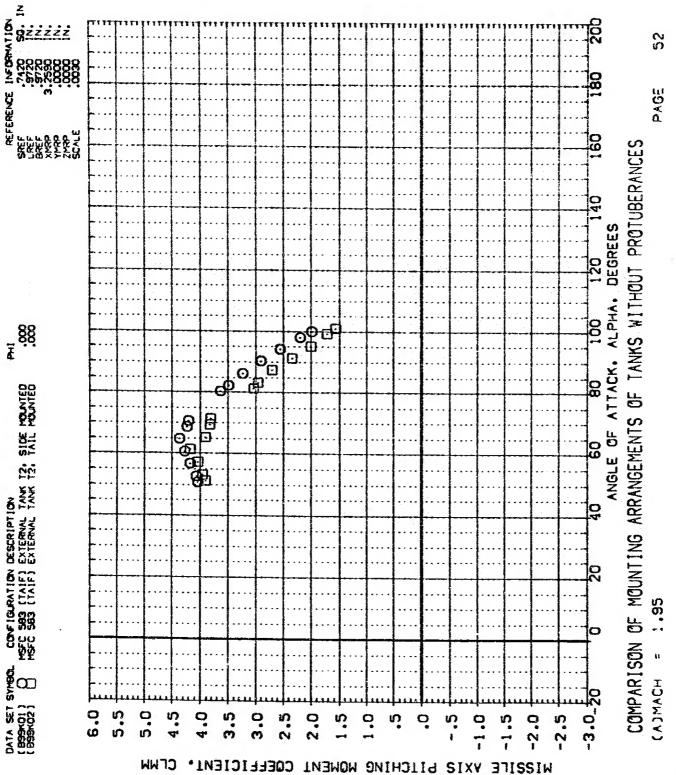
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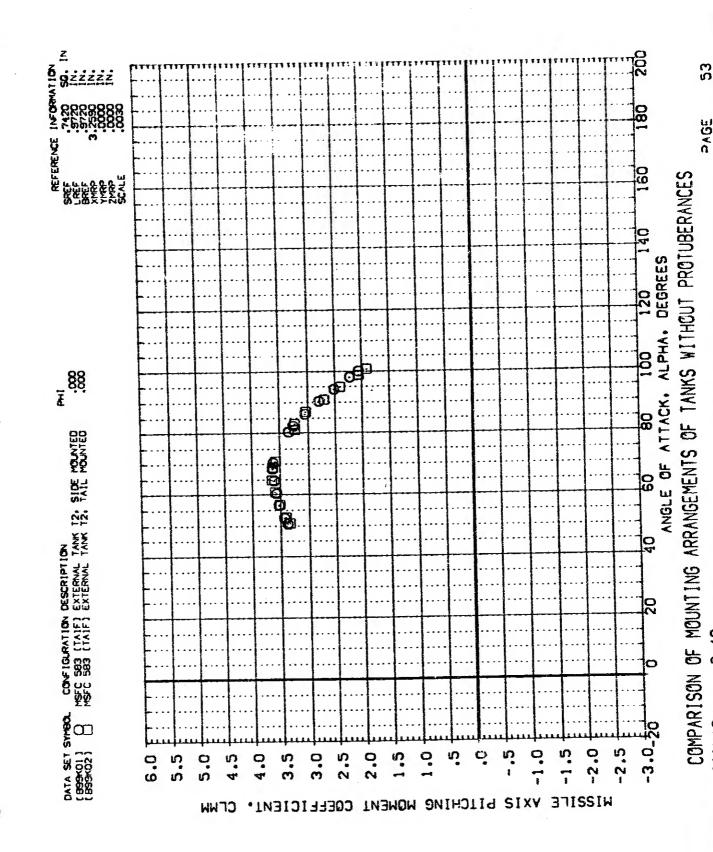
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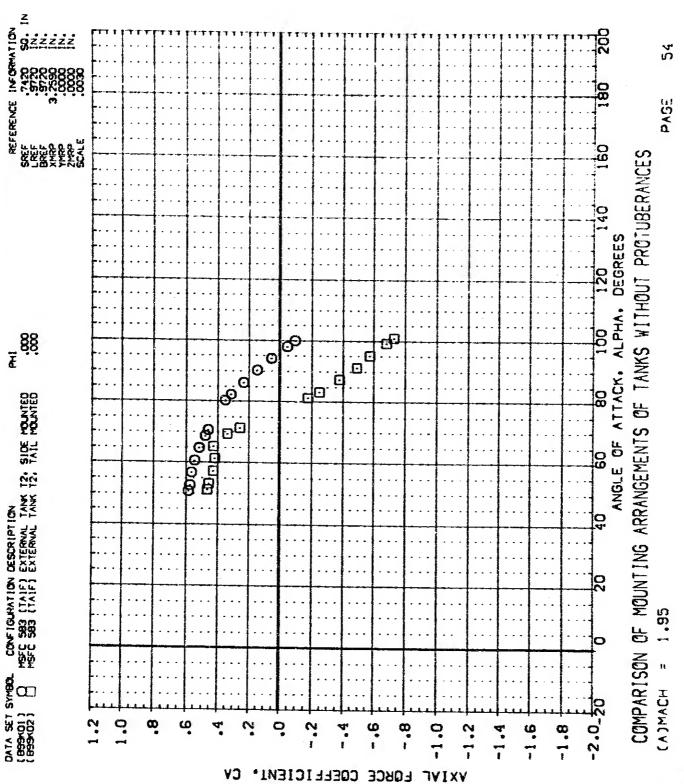
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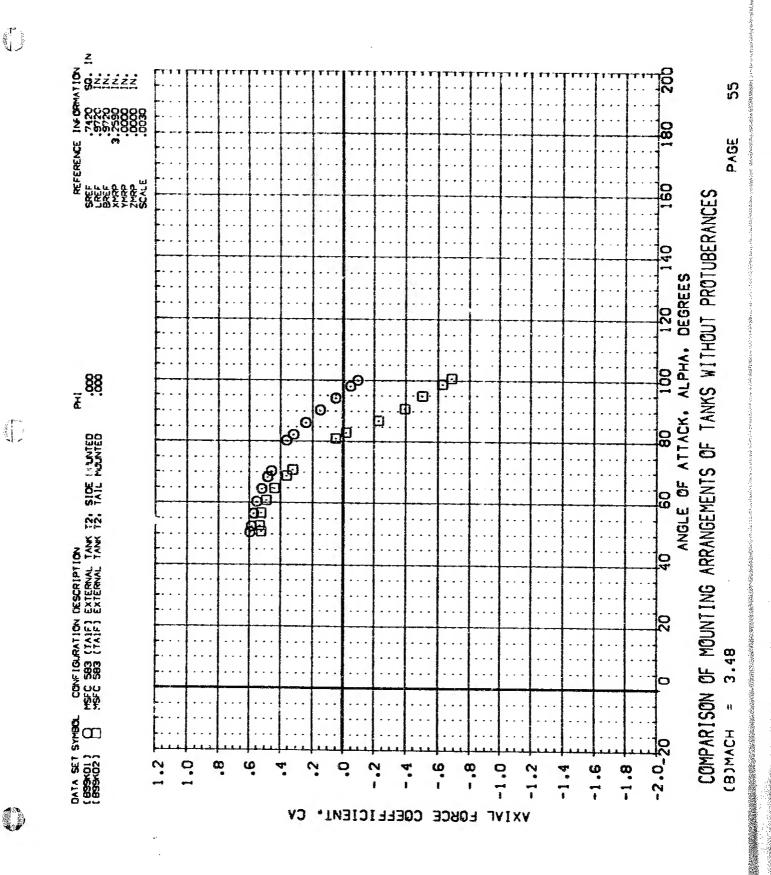


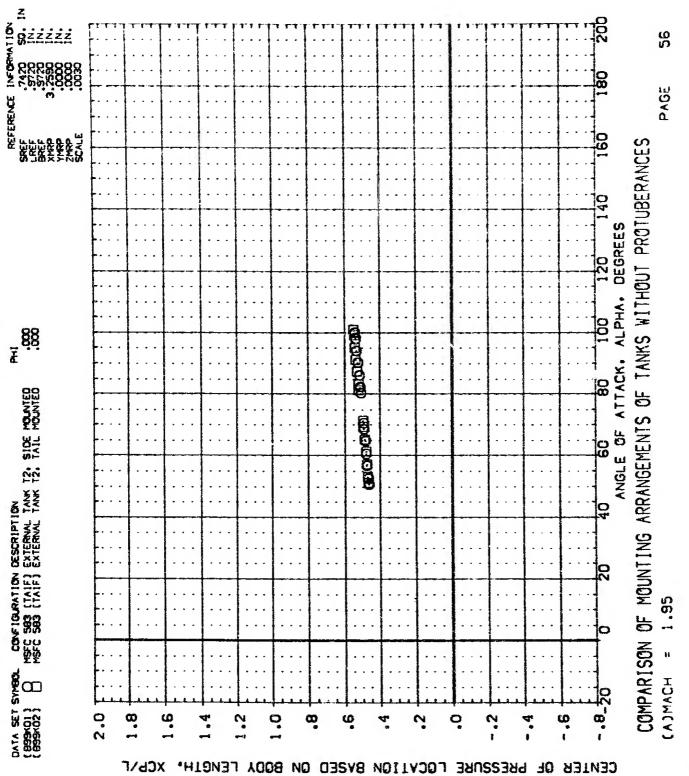
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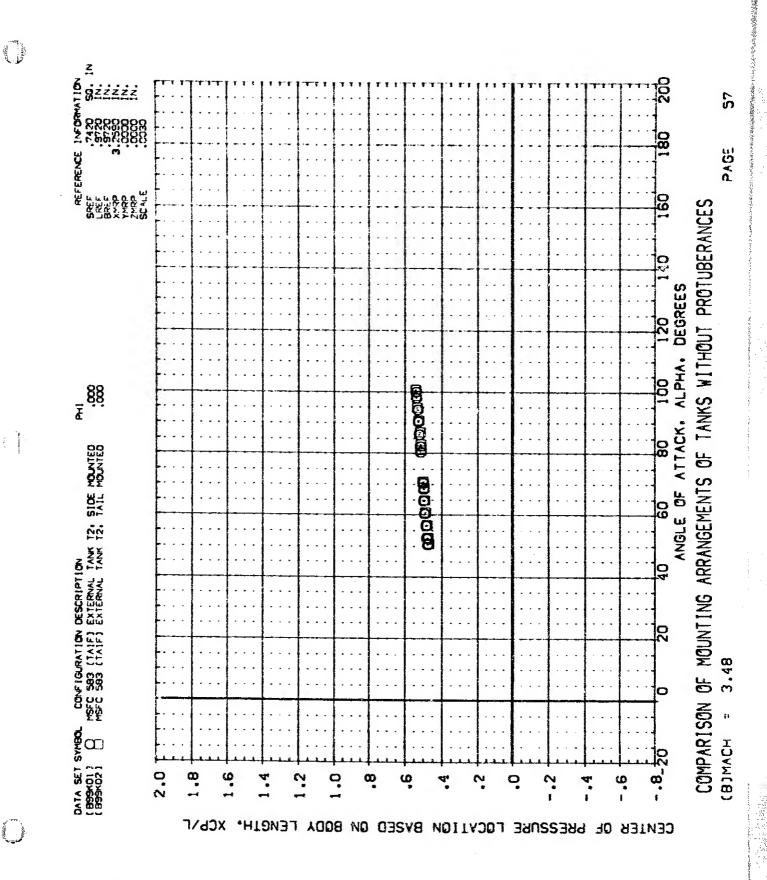


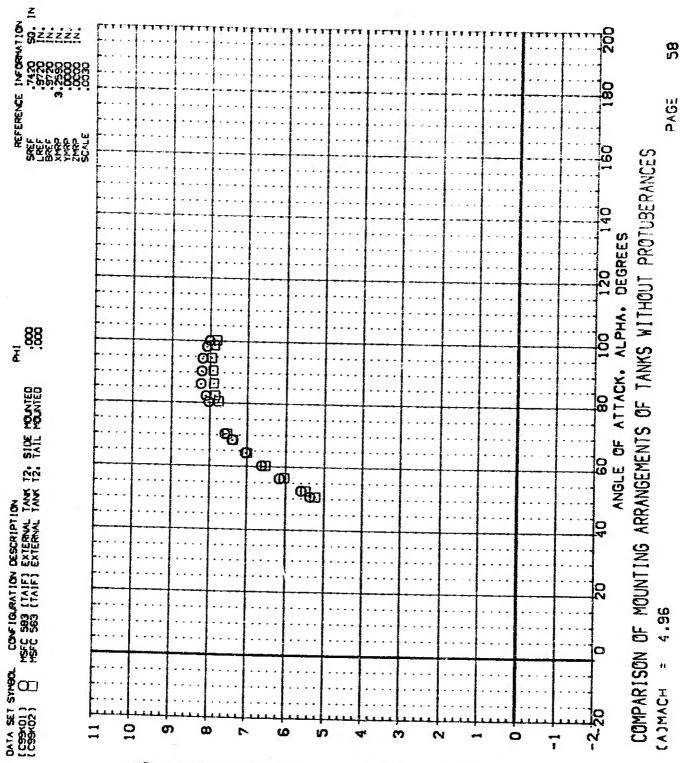
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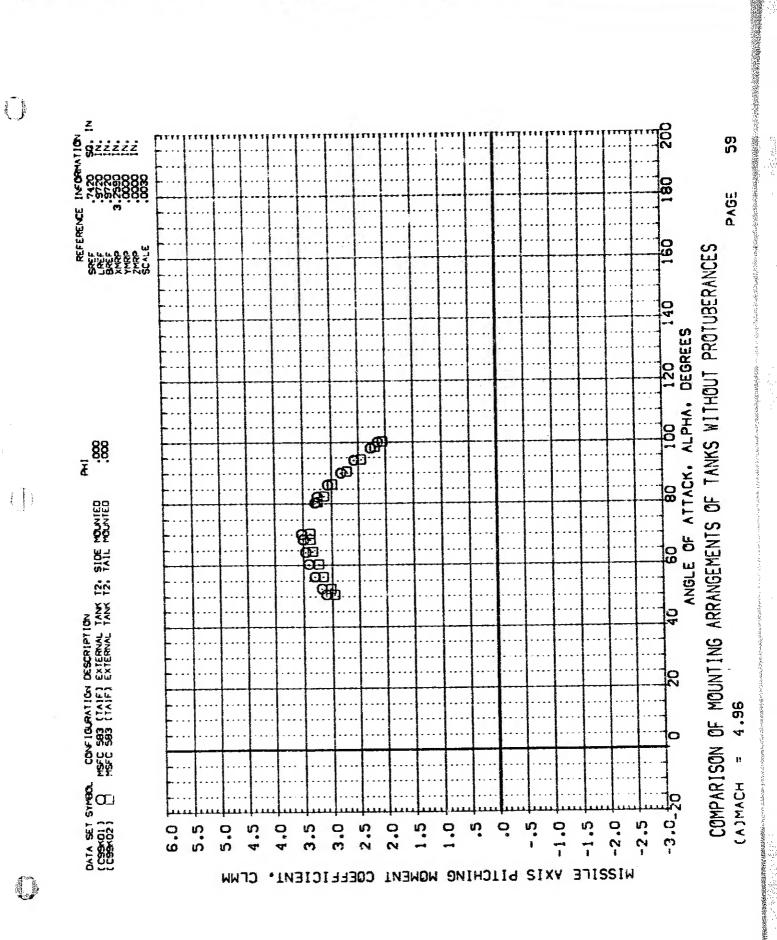


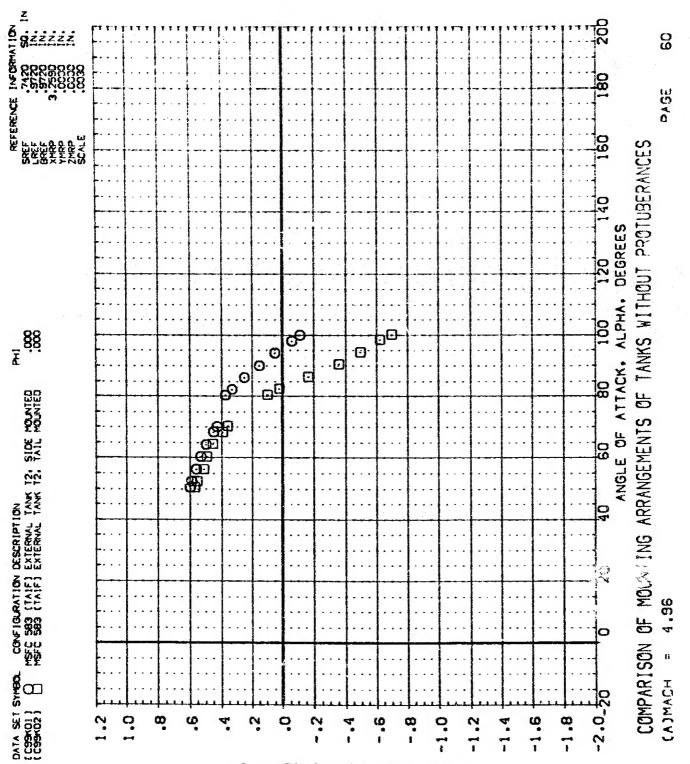




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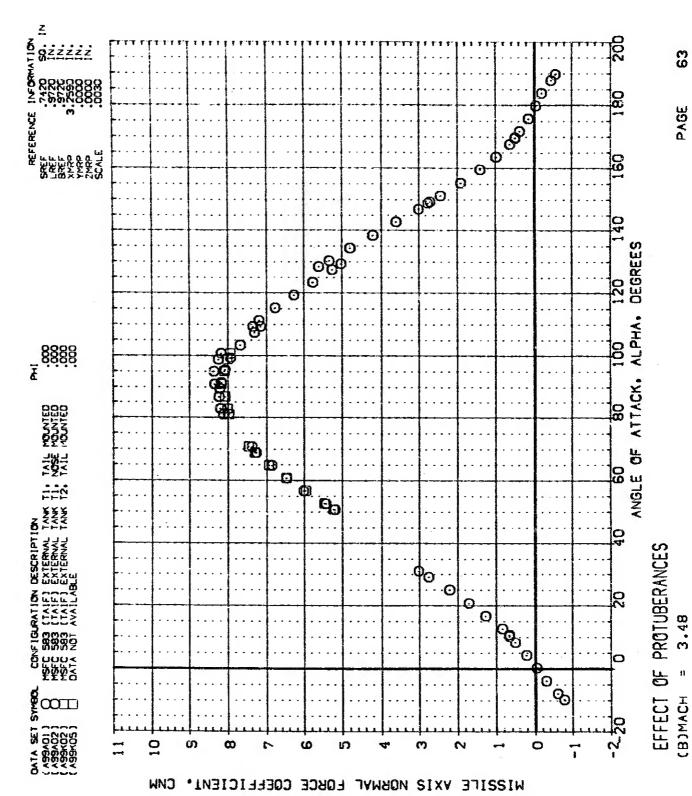
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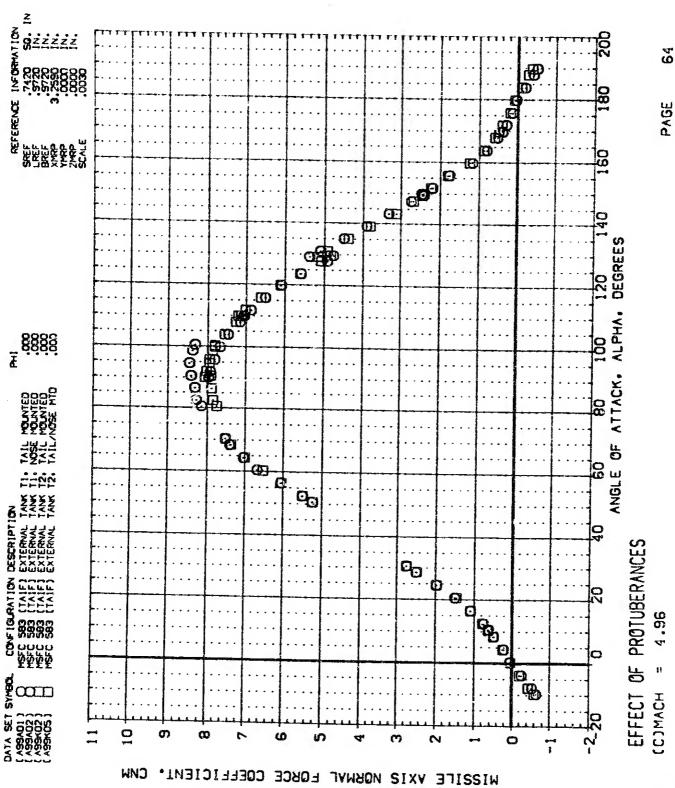




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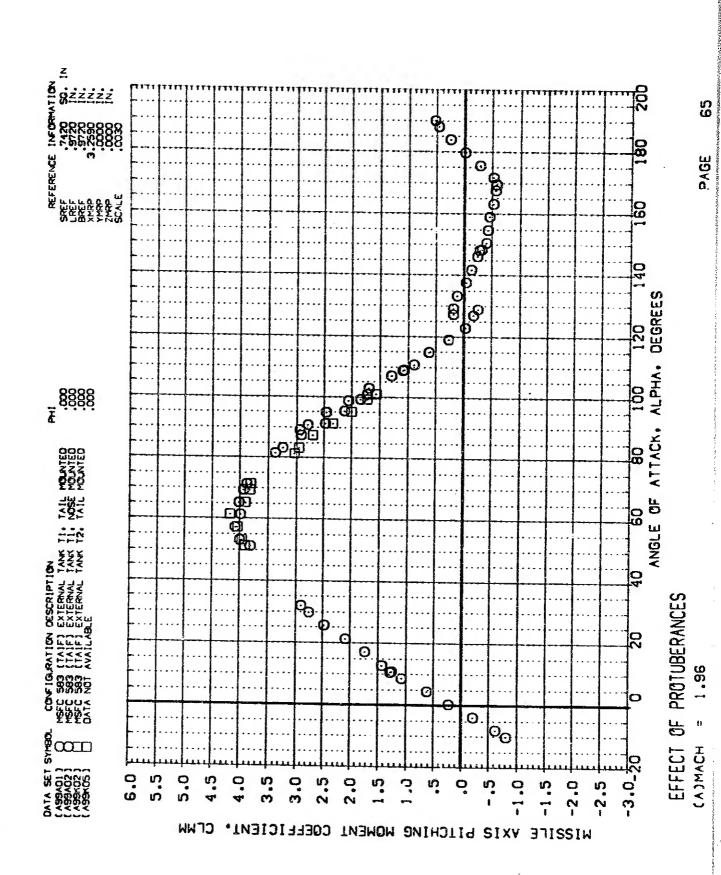


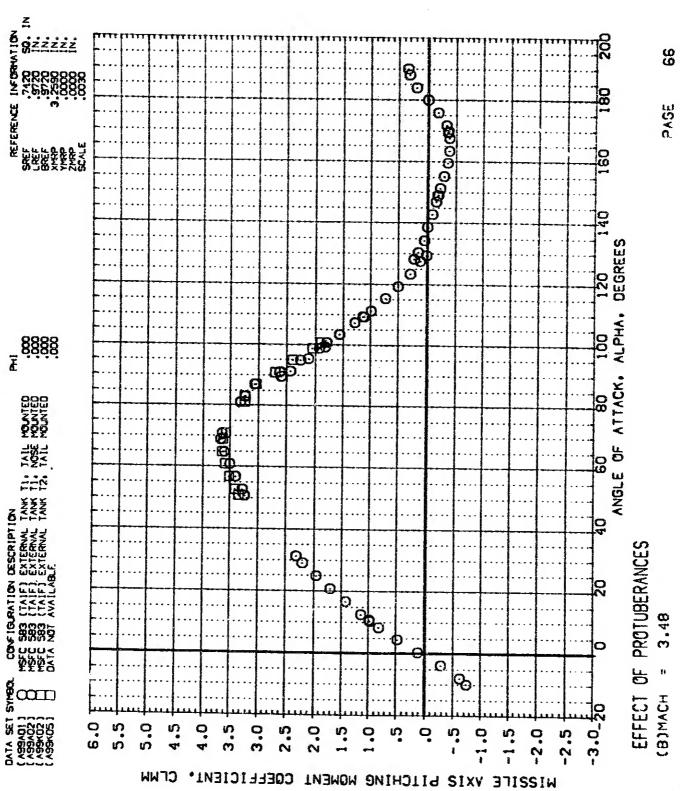
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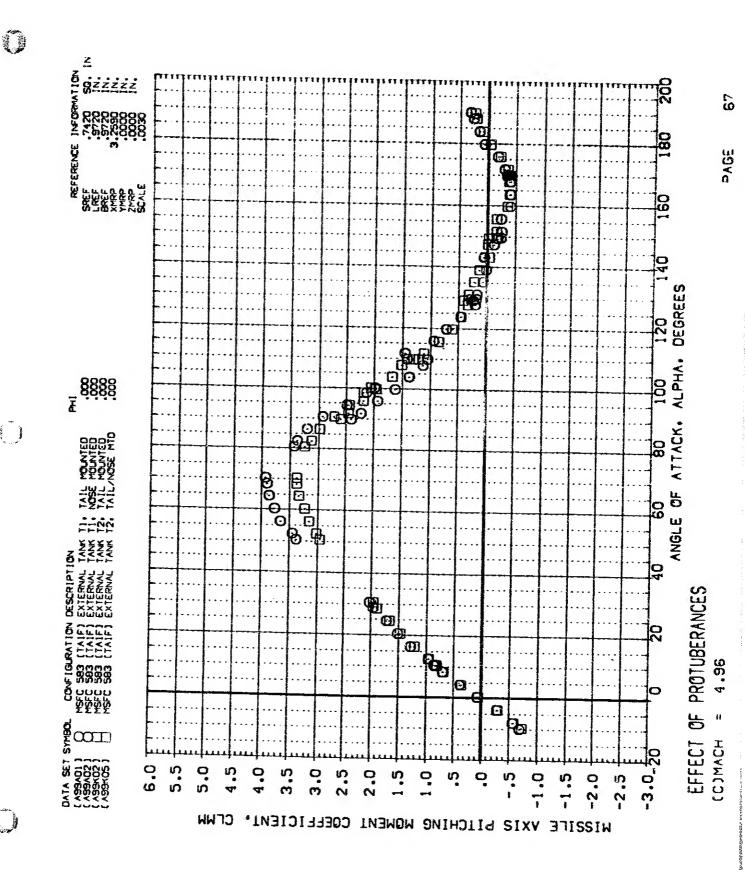


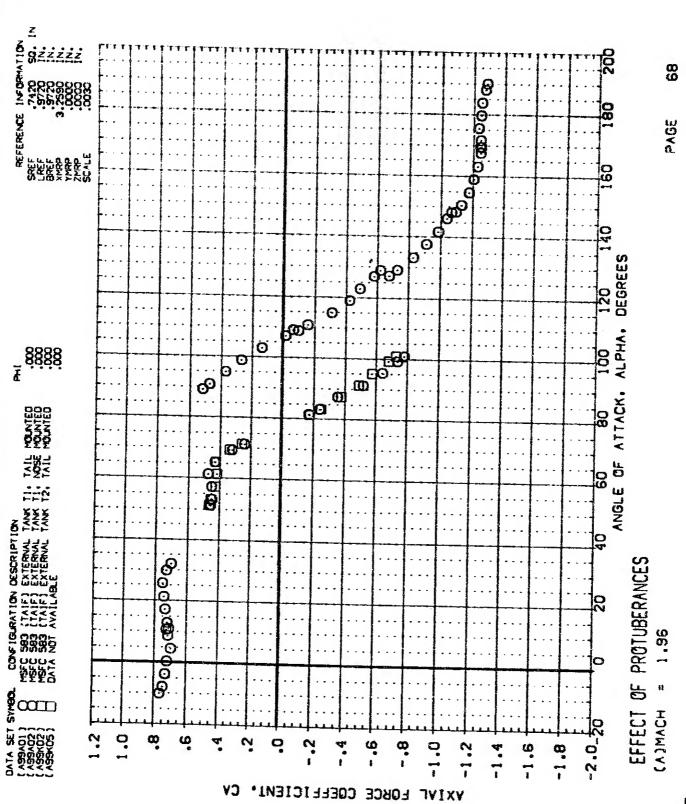
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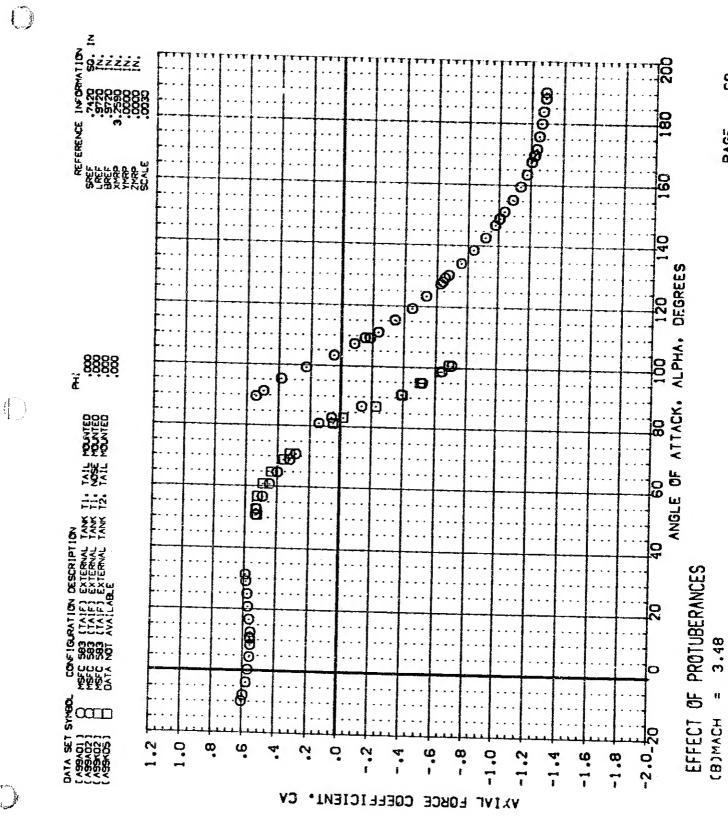


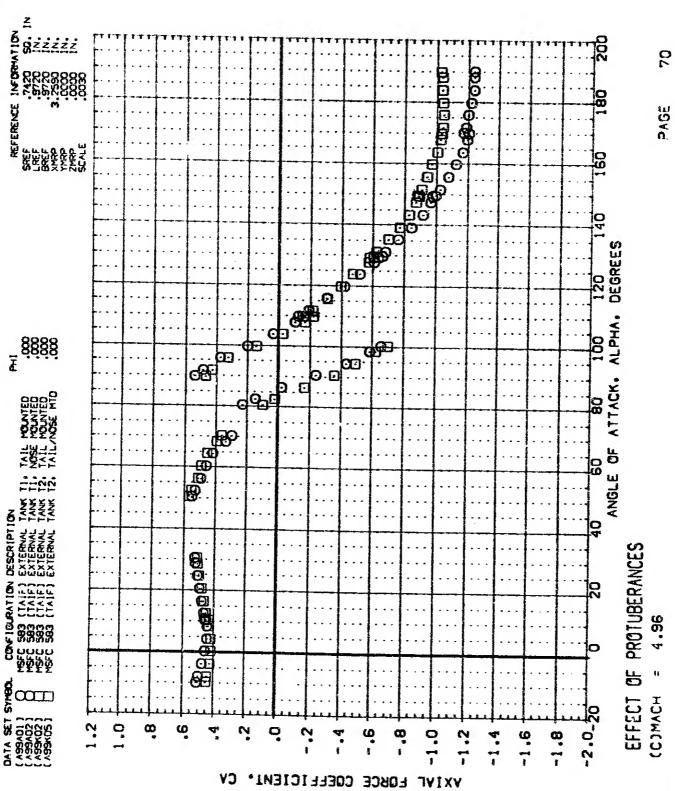






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APPENDIX

TABULATED SOURCE DATA

Plotted data listings are available on request from Data Management Services.

				2	FC 583	(TAIF) 32	IN.	114. 57.410	HSFC 503 (TAIF) 324 IN. DIA. 57.418	<u>.</u>			3
	ADT.	ACTERENCE DATA							30 M	<u>-</u>	(K99001)		(\$0 KAR 74)
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		ŭ	RGN NO.	133/ 0		RM = 6.	6.95 GR	GRADIENT INTERVAL =		-5.00, 5.00			
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1.956	6.500		•	0.000	01680		01820	.00060				00000.	
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3.47	-9.940	- 78160	ì		¥ .		¥ S	é	3	48	5		
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4.960	-9.610	64840	59410		CT. N	~		GBL CBL	ð	CAB	Š		
4.960	-7.690	52490	The state of	3 5	7610	•	02320	00030	.50710	06000	10660	ē	ጀ
4.960	-3,630	-,26460	28340	9 5	Decia.		0867	09200	49760	.01230	39450	00000	. 50810
4.960	204.	08160	1.8460		20.0		י תכנות	02020	47380	.01416	10410	0000	. 48520
4.960	4.850	.20360	37940	000	0.00		07110	66030	.45790	.01040	39860	00000	.45960
4.960	0.270	.47880	76:00		0.000		Basen.	05520	.44280	.01259	24870	00000	.44700
4.960	10,190	61620		2 5	11800		01180	06170	.44320	.01230	0000	50000	43020
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			T)	FC 583 (TAIF)) 324 IN. E	MSFC 583 (TAIF) 324 IN. DIA. ET (418 MOD) W/GRIT	D) WGRIT		(499 502)	2) (20 MAR 74	AR 74 J
	RUTADK	KE DATA						-	PARAMETRIC DATA	DATA	
# 13M	.7420 88.	IN NOWP	10	5.2590 IN.				BETA =	000	H	000
	.9720 IN.		H	.0000 IN.							
BKALE :	.9720 IN.	2540	60	.0000 IN.							
		RUN NO.	NO. 1347 0	O RMA, II	6.95	GRADIENT INTERVAL =	VAL = -5.00/	00' 8' 70			
HACH	AL PRIA	3	4	ž	3	Ē	ð	ą	9	190	ş
1.963	10.770	.66580	1.26440	.01280	06000	0000	70960	0880	28260	00000	A1140
1.863	12.740	.87950	1.43640	.01750	.00120		2000	10630	29840	00000	61410
1.963	16.990	1,45190	1.72640	.03570	-,02620	.00950	.73180	.12060	.37570	00000	61110
1.963	21.250	2.05110	2.06410	. 09220	-,05470	.00610	.74500	.12690	.40600	00000	.61610
1.963	25.530	2,70670	2.46680	.02590	02700	.01320	.75410	.13240	.42410	00000	.62170
38.	29.760	3.33200	2,75150	.02640	Best	. corso	.72700	13330	43990	00000	.59360
3	31.800	3.69940	2,89850	00120	a910	.05930	.69700	.13150	.44640	00000	.56610
3	21,220	2,03660	2.08070	.05120	04140	.01310	.73410	.12700	.40520	00000	.60710
	GRADIENT	.14488	.07830	-,00027	00180	.00024	90000	96100	.00856	.00000	60150
MYCH	ALPHA	3	CLVM	CYM	NA.	ල්	ర	CAB	χPλ	189	Š
3.479	10.630	.67250	09066	.00609	.01700	60190	.55560	06070	32660	00000	.51460
3.470	12,560	. 85580	1.13700	000940	.05880	.00490	.55270	04110	.35170	.00000	.51160
3.479	16.700	1.26480	1,41530	.01430	.01010	-, 00030	.55930	.04280	.38840	.00000	.51650
3.479	80.620	1.70530	1.69570	.01160	00120	.00380	.57030	.04220	04004.	. 00000	.52600
2.0		2,21190	1.95460	00280	.00430	.00230	.57510	.04100	.42900	.00000	. 53400
2.47		2.74830	2.19480	06700	01060	. 00120	. 58640	.04160	.44370	, 00000	.54470
2.4.2	20.16	3.02720	2505.2	20000	02390	00230	.58960	04220	.45020	.00000	.54730
		1100.1	20450.1	00110	00400	- 00000	. 26730	. 14380	.46800	00000	. 52350
	CA COLON	.11492	. 26.32	28000.	00159	UUUUG	. vuise	cúnta.	. 00577	00000	.00179
		RUN NO.	9, 0	BNAL :	5.01 GR	GRADIENT INTERVAL = -5.00/	AL = -5,00	9.60			
MACH	AL PHA	3	₩ 70	C	CYNA	9	ð	CAB	XP.	8	ğ
4.963	10.490	.63040	.67270	04690.	.04530	.01240	46280	.01370	.34200	. 00000	44910
4.960		.75340	. 95990	.00980	02040	06130	.46520	.01110.	.36110	. 00000	45400
4.960		1.09650	1.27900	06500.	06110"	61900	.47840	. 66800	37990	. 00000	47040
4.960		1.50630	1.51700	00770	.04880	.05960	49660	.00420	.40750	. 00000	49230
4.960		1.96940	1.71460	.61170	.03350	06910.	. 56740	02500.	.43120	00000	. 50160
4.980		6.55110	1.96100	.01450	. 61590	00200	. 52160	05600.	.44630	. 00000	31210
4.960		2.76010	2.02790	.01620	01910.	.00370	.52650	.01110	.45460	. 00000	.51550
4.960	20.555	1,49320	1.50720	01410	00490	. G2340	0404	5.040	61807		
					3 1 2 3 4 4		2000	7000	7.704	00000	A 81 50

DATE OS AUG 74	AUG 74			TABUL	ATT	TABULATED SOURCE DATA,		MSFC TUT 563					PACE	g/s
				HSF(Ų	563 (TA1F)	324 IN. 01	MSFC 563 (TAIF) 324 IN. OIA. ET (418 MO) WORIT	30) WGRIT		(89)	(899003)	C 20 MAR 74	~ 2
	AUFERE	REFERENCE DATA									PARAMETA	PARAMETRIC DATA		
SAUF .	.7420 sa. IN	19. IN YORR	# E	3.8	52	3.2590 IN.				BETA	000	, a		000
LREF E	.9720 IN.	N. YMER	4		200	.0000 IN.							,	
BACF 8	.9720 IN.	N. ZHEP	بر چ	٠.	200	.0000 IN.								
SCALE .	0.000													
		\$	RUN NO.	977 0		RNA.	6.74 GR	GRADIENT INTERVAL =	VAL = -5.00/	90. \$.00				
MACH	ALPHA	3	Ų	CL H		¥.	Cyne	é	ð	CAB			-	ş
1.955	51.160	5.86730	80	09609.		.08350	.04630	00160	.45770	000	0.46970		0000	45770
1,953	53,120	6.04510	'n	.99940		.08270	.04560	. 00000	.44530	00000			0000	44530
1.935	57.170	6.45990	4	01640		01960.	.02230	.00100	.45030	000			0000	45030
1.955	61.240	6.82990	'n	.98330		11310	.64770	00470	.47510	0000			0000	47516
1.955	65.329	7,22660	*	01210		13540	.04110	.00210	.43080	0000	•	•	0000	43080
1.935	69.310	7,52940	'n	1,93540		13210	.01730	.00250	31910	0000			0000	31910
1.953	71.230	7,75450	n	3.67800		.13340	. 00310	.00880	.23450	00000	Ī		0000	.23450
1.958	61.255	6.73790	IJ.	1.99180		.15780	02030	.00250	.46860	.0000			0000	.46360
	CRADIENT	.09380	•	. 00024		. 56283	00160	.00035	יי טעטיי	יטיטט'		_	00000	-,00913
		N. W.	RUN NO.	95/ 0	-	RNY.	6.25 CR	GRADIENT INTERVAL =	VAL = -5,00/	0/ 5.00				
HOM	A PA	Š	ซ	3		Æ	M	é	ర	CAB	XCPX			ğ
3.479	50.730	5.20520	*	5,23340		.05180	,02350	00240	.53350	0000			0000	. 53350
5.47	95.650	5.44200	n	8,27290		02050	.01820	01310	.52670	.00000	0 .47600		0000	. 52670
2.47	26.710	6,01230	6	3.39540		.06230	.02760	0.009TG	46990	0000	Ī		0000	48950
2.479	65.70	6,47950	2	3.50290		.07290	.02270	01270	.44850	0000	0 ,48850		0000	44850
3.479	64.630	6.87690	N.	.61750		.08630	.02840	01770	.40010	00000	-		0000	46010
27.5	68.833	7.27040		.67750		11070	.00610	01730	.32420	3000	0 .49460		0000	.32420
24.0	70.740	7.39410	n	.65360		.16660	02650.	01650	.20350	00000	٠		, 00000	.28350
2	69.760	6.51570	n	20480		.09100	.02450	-, 64440	.45020	. 00000	•		0000	.45020
	SACIENT SACIENT	1003		, 02362		.00313	- 00064	-, 00057	-,01237	, 0500	\$0100.		0000	01237
		N _a	Š Na	96/ 0		RML :	4.87 GRA	4.87 GRADIENT INTERVAL = -5.00/	VAL = -5,0	00.8 /0				
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4.960	50,390	5.24110	.,	3.38950		.07590	01150	02410	.55070	0000			00000	48090
4.960	32,300	5.48570	4.6	3,45650		.07740	-,01750	05940	.53250	0000	•		0000	046
7.860	96.320	6.05640	3.6	3,66330		. 69230	-, 01930	05400	.49566	.0000			0000	39567
4.980	60.370	6.68260	3.7	3,77990		02160'	-,00510	05800	.46590	0000	•		0000	06094
4.960	014.4	7.04630	3.6	06999.		11590	01670	05960	.41610	.0000			2000	41616
4.960	69.360	7.41390	ι. Ω	.95140		10790	.01770	67320	.33240	. 0000	·		0000	33240
4.960	70.260	7.52160	9,	1.93610		11900	02320	-,67750	.29510	00000.			.00000	.29510
7.963	60,350	6.59970	80 T	.81260		09680	03670	-, 06669	.46610	. 0000	-		00000	.46010
	SA A DI ENT	\$2411.		. 02743		.05214	. 05049	00183	01243	0000	•	•	0000	01243

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* 1100									PARAMETRIC DATA	DATA	
CHET *	.7420 34. .9720 1N. .9720 1N.	1. IN MARP 1. THEP 1. ZHEP	10 H W	3.2590 IN. .0600 IN. .0000 IN.				BETA =	000.	#	. 000
		2	RUN NO. 98/ 0	O RNY =	6.72 CR	CRADIENT INTERVAL =	VAL = -5.00/	30, 8,30			
MACH	ALPHA	3	£	Ě	2	ĕ	2	CAB	70,	ğ	Š
1.953	61.390	0.31060	3,36450	.11430	01740	01000	17260	00000	.51170	00000	•
1.833	63.290	5.40920	3.24590	.12010	0.02910	00400	23840	מטטטט	2.8.5	50000	
1.953	67.300	8.61046	2,90710	.12350	03400	00170	35000	00000	Darch.		
1.953	91.270	8.72900	2.46370	.12060	-, 50710	COSDO	52060	יניטיטיט	4444		
. 953	95.250	0.69970	2,12110	13420	01610	05500	64200		3 0 0	20000	
1.953	99.160	6.63350	1.84250	13270	00550	Cosco	23.000	0000	3000	Conno.	
1.953	101.050	6.55370	1,71850	12460	02410	06600	70100	:000	00000	2000	
.953	91,230	0.67970	2.43020	12220	00750	חופטט	13061 -	00000	20745	מפמסס.	
	G RADIENT	.01294	08732	. 95679	.00214	.00055	03169	50550.	.00167	00000	03169
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	200		01010.0	00000	25400	02610	.13870	ם מממם.	.51140	. 00000	
2.7	20.00	0.0000	3,6399	0.000	0.000	01370	08950	conor.	. 51370	00000	
	0000	00000	01100.6	0.000	02120	00100	13860	30000.	. 51780	.00000	13860
	200,000	0.34760	20220	.1001	-, 5200	00220	3884€	00000°	.52790	. 00000	38840
	34.800	0.36670	2,25510	09760	.01050	.00260	51730	00000.	.53560	. 00000	-, 51730
2.47	96.790	8,25630	1.92960	.08750	.01410	00900	64310	00000	.54180	. 00000	
5.479	100.670	8.16920	1.78950	06963.	.05460	00940	70730	.00000	. 54440	.00000	
2	90,840	8.32270	2,66270	.13570	05580	-,01590	40100	00200	, 52690	. 00000	
	SACIENT	29. 52	-, 08129	.05082	. 00032	.00029	04377	.00000	.00176	.00000	_
		RUN NO.	/26	D RNYL =	4.92 GRA	GRADIENT INTERVAL =	WL = -5,00/	05.8 70			
HOW	ALPHA	Ž	¥)	£.	CYNE	ĕ	5	84.0	3	9	
4.960	60.540	6.15180	3.44090	01060.	02760	-, 00500	22590	90000	95010	1920	
4.960	62,440	8.29680	3.38610	.09610	06140	-, 04240	14730	2000	24.18	00000	
4.963	86.430	6.33300	5.21160	06363.	06170	04136	62320	00000		00000	
4.960	90,430	8.41910	2.93070	,16280	17760	06453	23950	00000	1000	0000	
4.960	94,440	8,46950	2.47890	.67550	C84CO	00490	43400	00000	09188	במממים.	0.665.
4.960	96.400	8.39510	2,13720	. 09640	16229	02910	58630	0000	53.820	00000	
4.960	100,300	8.32420	1,98530	15390	00690	-, 02650	65850	00000	54110	5000	
4.960	95,436	8.40500	2.93360	17400	485.40	DATE -	94060			3 1	
					•				22.00		

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CATE 03	CATE OS AUG PA		TAB	LLATED SOUR	TABULATED SOURCE DATA, HISTC TUT 543	FC TUT 543				•	4 37 8
			x	SFC 303 (TA1)	MSFC 563 (TAIF) 524 (N. Old. ETIAIR MODI LICENT	IA. ET (41R.	era), 1,4661*				
							1		(KAROOS)		. 20 MAR 74 .
J	Ş	CKEME DATA							PARAMETRIC DATA	DATA	
	7420	ĭ	pe	3.2590 IN.				BFTA	6		•
יייני יייני	. N 0278.	IN. NARP		.0000 IN.				¥ .	200.	E E	000.
DACT.	.9720	20 IN. 2768P		.0000 IN.							
SCALE :	0000										
		3	RUM NO. 1127 0	O RIVL =	6.9	GRADIENT INTERVAL =	RVAL = -5.00/	90' 5'00			
TO Y	APPRA A	3	5	į	•						
2.959	_		-			ð	3	8	XCP.A.	Cont	Ş
1,955			3000			. 00560	6t790	.00000	.59070	00000	
1.044			-18140			00230	56100	00000	2008		2000
			00400		.00600	.00760	49240	מטטטט	0.000	00000	56100
			.25770	09400	0.00540	00000	- 424an	00000	9	Booon .	49240
CCA**			.61960	09340		- กกกรก	2000	0000	DJCJ2.	. 00000	42480
1.055		7.39570	.90050		·	0000	oinic.	conno.	. 56710	00000	31010
\$ 998	108,830	7,55250	1.06940			2000	130/1	.00000	. 56130	00000	15670
1,955	118.690	•	PASAG		0.010.	00450	06640	.00000	.55790	00000	DSS&0
	CAADIENT		200	17000-	- ממצות	.00570	41310	.00000	.57540	00000	41810
			1000	19200	.00181	.00054	~.02653	00000	.00167	.00000	02653
		RUN ND.	NO. 61/ 0	O RM.	6.26 GRA	GRADIENT INTERVAL =	IVAL = -5,00/	0/ 5.05			
MACH	AL PHA	ş	3	25	3	(į				
W. 47	129,320	5.02030	.01330	•	00000	4	5	8	አ ረግጽ	2	ä
3.479	127.400	5.26310	11960	•		16910	65350	.00000	. \$8200	. 00000	65330
8.478	123,350	-	DAGAG	0440	00100	. 01480	£2380	00000°	.57850	.00000	.62380
3.479	119,290	Ī	40100	2000	0.6410.	05820.	53420	.00000	57370	.00000	61490
3.479	115.240	Ĭ	0000	0000		.01960	44710	00000	.56850	.00000	0 0 1 1 1 1
3.479	111,230	7.25.240	0000	025/0	01300	.01880	-,34290	.00000	56350	00000	20000
8-478	100 120	2000	0.000	01190	02530	.01900	-,23710	.00000	55860	00000	2000
8.479	150.200	A 24440	110740	-, 08250	02330	.05480	18290	. 00000	. 55630	5000	1.53710
	20401510	2000	14550	-10710	04890	.01980	44350	.00000	SAGRE	0000	16291
		2/011	Royco	tomo.	.00252	00103	-, 02367	.00000	.00126	00000	02567
		SC NO.	Ø. 62/ 0	G RN/L =	5.00 GRAD	GRADIENT INTERVAL =	WL = -5,00/	5.50			
HACH	ALPHA	2	¥	20	35	É					
4.960	129.650	4.77400	18580	חושבאון -	004.00	9	5	CAB	XPX	ē	ă
4.960	127.760	4 92540	00.00	2000	nocto.	24140	-,66080	00000	.57570	. 00000	2000
4.960	123.710	5.56500	46530	01600	07500.	.03590	61059	. 60500	.57540	00000	2000
4.960	110.500	Casan A	04004	00000	00240	.03\$60	52040	. 60000	. 56800	00000	000101
4.960	115.660	0.404.6	0.000	10160	-, 06310	.03480	41795	. 95559	56190	0000	- 35 C
4.960	111 675		0.00	-,10670	09580	, 01960	30310	.00000	35730	9000	004.4
4.980	159 7AC	9 00000		12500	. 55770	.02580	18920	. 55005	54560	0000	01000**
000		00000	1.42040	10330	.01300	03270	-, 12420	60000	44760		02691
	201.411	6.01730	. 79650	07850	06290"	. 04550	41450	60000		00000	-, 12420
	SACIENT SACIENT		. 56761	.00319	00119	. 00245	02669	62000	0000	donon.	41450
								7 7 7 7 4	96100	00000	S. Carro

REPRODUCIBILITY OF THE

(R99006) (80 MAR 74)

MET	. 7420 34. . 9720 IN. . 9720 IN.	3	2 4347 2 4347	•	5.2590 IN. .0000 IN.	<u>i i i</u>				BETA :	000.	Ħ	10	. 000
		ă.	RUM NO.	130/ 0		RNA	6.99	CRADIENT INTERVAL =		-5.00/ 5.00				
HOW	ALPHA	\$		CL.MM	H.O	I	CYNAM	ฮ์	ð	CAB	20,3	3		ş
1.94	140,170	3,41360		28870	0	-,09850	06930		-1.06320	00000	59710	ָּבָ ק	20000	֓֞֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓
1.940	146.170	3,71460		25150		-,10750	C6240	03200	-1.03390	00000	59420		00000	00000
1.94	141.600	4.45450		13790	0.0	D863 D	02300		06280	מטטטס	A8780		2000	BOOK TIL
2.940	137,550	5.17680		04430		-,04230	.01560	•	91420	00000	Selec.	Š		DESER'-
. 500	133.320	5.76230		111170	9	03060	.00669	•	63000	00000	57910		00000	- 4400G
2.548	129.690	6.34500		18630	0	.03030	-,01690	•	73140	00000	57730	20	00000	77.40
9	127.080	6.62490		.18360	0.	01840	01610	.00350	67940	00000	57760	ě	00000	6.00.0
	137.660	3.00060		04720	3	C4850	.02250	.00820	89780	.00000	58410		00000	- ASTAG
	CRADIENT	15303		02418	Ğ	60431	00266	.00028	01799	.00000	96000	8	00000	01799
¥ Ç	AL PRO	3	•	3	į			(
				Ę .	5			•	ð	- 649	XPX		-	N.
	140.000	2.74760	•	-17710	3	-,04210	00880		-1.00470	00000	59360	8	00000	-1.00470
	140.070	26920.0	-	-16040	3	-,03620	.00250	.01400	97880	60000	59170	8	00000	97880
7.7.	200.200	200000		31365	3	03980 	00420	.01420	91500	. 55555	. 58680	8	00000	91500
	20,000	4.60560		01010	03570	1270	01630	.01480	84150	00050	.56290	8	.0000	84100
2	134.560	4,78320		3	03440	140	00460	. 86388	-,75890	.00000	.58100	00.	00000	74890
K	130.240	5.33600		.15150	03240	240	02200	.01700	67620	00000	57750	6	บบอนบ	20000
2.479	128.870	5.61180	•	.22510	01910	910	01060	.01840	63690	.00000	.57550	90	00000	STATE OF THE OFFI
2.47	136,530	4.20613	e	-, 03320	08080	060	00070	DIRPR.	8429A	กากกก	58380	0	00000	20070
	CARCIENT	13983	ř	ŭi 693	00076	940	.00059	0000	01808	.00000	.00085	S	00000	01606
		2	SC NO.	29/ 0		RN/L =	4.97 GR	GRADIENT INTERVAL =	VAL = -5.00/	00'\$ /0				
MACH	ALPHA.	3	J	CLM T	Š		3	ĕ	3	CAB	X	100		3
4.960	149.890	Z.41010		19540	-, 03640	070	0385G	. 03630	06579.	00000	80610	, ;		-
4.980	147.360	2,73640	,	-,12510	03290	290	C3480	.00660	01996-	00000	2000	2 5	20000	97390
4.960	143.280	3,30550	•	O4190	03120	120	02560	00010	99400	00000	3 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6			1 20410
4.960	139.200	3.95650	•	.00120	02270	270	-, C4580	13500	64580	00000	0.000	2 6	0000	00516
000	135,130	4.50290	-	. Ce160	02650	650	04640	.05660	76310	. 00000		2 6		20040.
4.960	191.060	9,10110	•	15220	05750	750	04380	. 52939	-,68220	. 00000	47500	2 6		01601
4.960	129,130	5.37270		. 22960	. 501.80	160	[2910	. 62780	63880	00200	0000			72200-
4.960	139.200	3.91840	•	.07460	60000	500	0.640	.03650	64360	00000	0000		3000	.63880
	CAACIENT	-,14631	7	01816	00166	166	96000	PLUUD -		3 6 6 6		3	220	64360
								1		11.5.1.7	-	-	****	

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anna).	-1.12620	00000	.00721	00000	01073	.00056	26000.	-, 00111	60791	10477	CRACICAT	
A STATE OF THE STA	-, 99290	00000	39960	מטפים.	1.12820	0220	-,02970	01170	39220	1.16790	159.670	4.960
	-1.01960	00000	.60390	00000.	-1.01960	DECOU.	C3890	01370	24320	2,46540	149.620	4.980
	-1,07260	. 00000	.60720	,00000	-1.07260	.00640	יי מכחות	00000	26860	P. 18040	151,550	4.960
	-1.12130	. 00000	.64380	. 00000	-1.12130	-, 00036	01600	0.0000	24040	1.73640	155,600	4.960
	-1.16340	. 00000	.67210	. 00000	-1.16540	.03550	02030	03820	41463	01741	150.670	4.960
· ·	1 1 0840	. 00000	.72410	. 00000	-1,19540	. 0408C	00680	01940	41450	00000	201.101	4
i de la companya de l	20000	. 0000	.73890	.00000	-1,20420	.00550	60149	01900		258476	169.67	
र व्यक्ति सम्मन	5	688	XPA	CAB	5	ච්	Z.	S. F.	¥,	¥ .	ALPHA 149 AT	HUN .
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				5.00	WAL = -5.00/	GRADIENT INTERVAL :	4.98 CRM	# ', ',	O. 58/ U	AN NO.		
	01020	. 00000	.00531	. 55000	01020	00048	.00025	.00017	29900	. 1001		
r inty in	0.600.1	00000	62470	00000	-1.13630	.01680	.01730	0.00690	~. 3393D	1.39400	159.420	2.4.0
and the second	-1.03790	00000	2000	מטטט .	09600.1-	.01780	00730	01860	19420	2.69930	149.160	27.0
N. S.	-1.09050	00000	0.000	0000	-1.03790	.00410	.00340	01460	22640	2.42700	151.150	0.47°
	-1.13460	00000	06750.	0000	-1.09050	01410	01330	00380	28700	1.69870	155,270	2.47
energe Partico	-1.17440	. 00000	.65060	20000	1 18460	02810	.02310	.00660	-,36290	1,40030	159.420	3.479
जरूतको <u>।</u>	-1.20510	. 00000	.68560	ממממס.	01603.4-	משיניט	01450	.00180	38750	.96720	163.550	5.479
	-1,21660	.00000	.70470	00000	1.21860	01600	00000	-,01360	38010	.63980	167.640	3.479
in in the second	2	CP81	አር	CAB	3	300	TO TO TO	. 61450	35580	50570	169.500	0.270
र स्वतिकार					į	ŧ	3	7.5	3	3	A PHA	HACH
tanen				00'8 /0	RVAL = -5.00/	GRADIENT INTERVAL	6.25 GR	BRNL =	NO. 57/ 0	S. N.		
ta enga	00721	00000	10900	.00000	-,00721	00053	. 00069	Amon.	9			
MATON !	-1.18910	. 00000	.62440	.00000	-1.18910	.05820	.05330	01540	0.45840	14020	CAACIENT	
in the second	-1.09300	. 00000	. 59850	. 00000	-1.09300	.00880	05110	~, 04570	52830	3.34670	25.00	1.953
***************************************	10.1.1.1	00000	60440	. 00000	-1,12750	.01320	01720	02220	40940	3.23550	244.000	
	-1.20340	ממחמה.	. 61250	00000	-1.17360	.01440	.06230	.04810	44390	2.36960	134.700	
	-1.22650	00000	19069	משטטי.	1.20340	.01160	.05420		47050	1.90220	156,980	1.953
, and the second	-1.24630	00000	06969"	00000	-1.24650	01010	07530		-, 52490	1.34790	163.220	1.933
e de la constante de la consta	-1.24960	. 00000	.73790	,00000	-1.24960	-, 00030	02120	0.02110	1. Sear	86250	167.430	1.853
residente de	ğ	CPB1	XCP.A.	Ç	5	ਵੱ	CANA	CTH	CLA	CNA	AL PHA	1.953
				00' 8'00	DRVAL = -5,00/	GRADIENT INTERVAL	8.9	מ אוער יי	RUN NO. 131/ 0	2		
								. NI anno.		- N	0000	4.4
	200.		200					.9000 IN.	M		.9720 IN.	ביי ביי
	e c			BETA				3.2580 IN.			.7420 Se. IN	
er en		DATA	PARAMETRIC DATA							ACTENEME DATA	ACTA	
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	PAGE 7	£				HSFC THE 563	DATA,	TABULATED SOURCE	TAB.		.	
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		AND LONG TO BE AND ADDRESS OF THE PARTY OF T	der frakken i til å flankline	and the first of the first of the first of	elegicano esercis semis.	e tra i de estador de deposito de la compansión	- 5	de en el ellastado	80 Service Service of Acti	William State (Section)		
English Control of the Control of th												327 Shander.

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### STRINGE DATA **TOTAL STRING BALL **TOTAL STRI						282	(TA1F)	324 IN. D	14. ET (418	NCC) WGRIT		(R990)		MAR 74)
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197.300	X ALE 8	0.000												
191 1910				RUN NO	132		13		ANTENA 120					
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1188.140141510	3			20	. 5330		210	CORKE	0000		2	1/d.	9	£
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173.480 .0166	1.963		•	10	2430			00000	0080n	•	.00000	.77490	. 00000	1.97620
1173.660 1.283700020000380 1.23450000008184000000881800000098180000008818000000188180000001881800000018818000000188180 .	1.963			2	Corer		200	00020	. 00880		00000	. 61940	00000	2000
111.1561 177796 175267 101350 101360 1,23440 1,0000 1,5350 1,0000 1,23410 1,0000 1,23410 1,0000 1,2350 1,00000 1,23410 1,23410 1,00000 1,23410 1,23410 1,2350	1.963				200		310	.01230	~, 00090		.00000	91840	0000	00000
119-810	236.				Very.		2	.01330	06000.		00000	81560		04642.1
175.101 1.00000 1.00100 1.00000 1.00	100			•	-,5667	,	260	06800.	.00380		DOUDO.	27.00	00000	1.5340
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NAME NAME Section 19539 100074 100077 100035 1000000 1000000 1000000 1000000 100000 100000 100000 1	2	179.610	, 026.	•		•	000	.02330	601an	Diote of	90000	2007.	00000	-1.24370
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188,000	2.47	189.840	5792	9	.34640		09	2	0000	× .	CAB	አ ረ	<u> </u>	ደ
133.90021200 .19120 .01330 .01620 0.00000 .1.2250 0.00000 .70220 .000000 179.840 .00000 .70270 0.00000 175.840 .00000 .00000 .1.27590 0.00000 .00000 .00000 .00000 .1.27590 0.00000 .	7.7	186.000	4508	0	31080		150	002.0	Despo.	00082.1-	00000.	.68630	00000	-1.28500
179.6400397001070 .00500 .0051000500 .1.25750 .005000 .775910 .00500 .00500 .175910 .175910 .00500 .175910 .175910 .00500 .175910 .00500 .175910 .00500 .175910 .175910 .00500 .175910 .00500 .175910 .00500 .175910 .175910 .00500 .175910 .175910 .00500 .175910 .00500 .175910 .00500 .175910 .175910 .00500 .175910 .00500 .175910 .175910 .00500 .175910 .175910 .00500 .175910 .00500 .175910 .175910 .00500 .175910 .175910 .00500 .175910 .175910 .00500 .175910 .175910 .175910 .175910 .00500 .175910 .175910 .175910 .175910 .00500 .17591	27.0	163.900	2120	0	.19120		00	0.6310	Deeno.	07685.4-	00000	.70220	. 00000	-1.26570
## Character - 18630 -	0. A.Z	179.640			.01070	500	90	מינים.	ORCODO -	1.27250	. 00000	.73910	. 00000	-1.27250
177.690 .37200 .32700 .00040 .00050 .00050 .1.28150 .00000 .80520 .00000 .7310 .7310 .00000 .7310 .00000 .7310 .00000 .7310 .00000 .7310 .00000 .7310 .00000 .7310 .00000 .7310 .7310 .00000 .7310 .7310 .00000 .7310 .7310 .00000 .7310 .7310 .00000 .7310 .7310 .00000 .7310 .7310 .00000 .7310 .7310 .00000 .7310 .7310 .00000 .7310 .7310 .7310 .00000 .7310	2.47	175.750	1452	·	18630	0.10	60	2000	- ממחכם	-1.25900	.00000	. 53540	. 00000	-1.25800
## Characters	3.478	171.690	3720		.32700	900	9		09200	-1.24560	.00000	. 80520	, 00000	-1.2456D
### CHAPTA CHAPTA01520 .00790 .00200 -1.25190 .00000 .71140 .00000 .00000 .53120 .00000 .00000 .53120 .00000 .53120 .00000 .00000 .53120 .00000 .00000 .53120 .00000 .00000 .53120 .00000 .00000 .53120 .00000 .00000 .53120 .00000 .00000 .53120 .00000 .00000 .31210 .00000 .00000 .31210 .00000 .00000 .31210 .00000 .00000 .31210 .00000 .00000 .31210 .00000 .00000 .31210 .00000 .00000 .31210 .00000 .00000 .31210 .00000 .00000 .31210 .00000 .000000 .31210 .000000 .31210 .00000	3.479	169.750	.4943		36700	0.0	, E	יייייייייייייייייייייייייייייייייייייי	p9000.	-1,25150	00000	73510	. 00000	-1.23150
### CAMPIENT03139 .03767 .00018 .0013000200 .1.26000 .00000 .93120 .00000	2.4%	179.040	0517	•	01520	600	C	מטטטיי	35000.	-1.82190	, 00000	.71140	. 0000	-1.22190
RUN NO. 53/ 0 RN/L = 4.99 GRADIENT INTERVAL = -5.60/ 5.0000214 .00000 000214 .00000 000214 .00000 000214 .00000 000214 .00000 000214 .00000 000214 .00000 000214 .00000 000214 .00000 000214 .00000 000214 .00000 000214 .00000 020210 020		CRACIENT	05135		03767	000		0000	משאחם.	-1.26000	00000.	53120	. 00000	-1.26000
#UN NO. 53/ 0 RN/L = 4.99 GRADIENT INTERVAL = -3.00/ 5.00 44,PHA CN+ CLM CYM CBL CA CAB XCP.L CFB1 189.82050910 .31720 .00420 .01140 .00380 -1.23600 .00000 .69970 .00000 . 183.86020720 .1593006410 .0195000780 .1.2350 .00000 .71600 .00000 . 179.820 .03930 .0611000620 .0170 .02230 .1.2910 .00000 .71600 .00000 . 179.820 .2354000420 .01660 .00790 -1.20100 .00000 .31210 .00000 . 179.800 .2664030620 .01960 .00280 .1.7000 .00000 .76690 .00000 . 179.800 .668400247000130 .0719000090 .1.21930 .00000 .51960 .00000 .						•	•	00100	00000	00317	.00000	-, 00214	00000	
4,PHA CA4 CLM CYM CYM CBL CA CA8 XCPA CPB1 169.82055910 .31720 .00220 .01140 .00360 -1.23630 .00000 .69070 .00000 169.82025910 .31720 .01440 .00360 -1.23630 .00000 .69400 .00000 179.820 .20530 .06110 .00520123630 .00000 .00000 .77600 .00000 179.820 .05330 .06110 .00540 .01560 .00180 -1.21910 .00000 .77600 .00000 177.800 .2864030620 .01960 .0196000790 -1.18430 .00000 .76690 .00000 1769.80 .00000 .01460 .03220 -1.21930 .00000 .75540 .00000 .75690 .00000 179.8300247000130 .0719000190 -1.18330 .00000 .75540 .00000 .75540 .00000 .75540 .00000 .75540 .00000 .75540 .00000 .75540 .00000 .75540 .00000 .75540 .00000			ă	Q Z	53/				IDNE INTER	VA1 = -5.60				
169.62050910 .31720 .00220 .01140 .00380 -1.23630 .00000 .69970 .00000 167.91041310 .2653000410 .0137000200 -1.23630 .00000 .69400 .00000 179.62020720 .1593000540 .0137000200 -1.23930 .00000 .71600 .00000 179.620 .039301612000540 .0156000100 -1.20100 .00000 .31210 .00000 179.600 .2644030620 .0105000790 -1.18430 .00000 .75640 .00000 179.600 .2644039350 .01460 .03220 .00200 .1,1930 .00000 .75640 .00000 179.6006644000440 .00130 .0719000000 .1,2130 .00000 .51960 .00000	MACH	AL PHA	3		3	2								
187.860 - 20720 - 35530 - 00410 0.01370 - 00200 - 1.23630 0.00000 0.69070 0.00000 183.860 - 20720 1.3930 - 01370 - 00200 - 1.23630 0.00000 0.69400 0.00000 171600 0.00000 171600 0.00000 0.013810 0.00000 0.013810 0.00000 0.013810 0.00000 0.013810 0.00000 0.013810 0.00000 0.013810 0.00000 0.013810 0.00000 0.013810 0.00000 0.013810 0.00000 0.013810 0.00000 0.00000 0.00000 0.00000 0.013810 0.000000	4.960	169.620	50910		1000		9	2	- -	3	CAB	XCP.A.	8	3
183.86020720 .159300052001490 .00490 .1.23850 .00000 .69400 .00000 179.820 .00000 .00000 .00000 .00000 .00000 .00000 .00000 .71600 .000000 .71600 .71600 .00000 .71600 .00000 .71600 .00000 .71600 .00000 .71600 .00000 .71600 .00000 .71600 .00000 .71600 .00000 .71600 .00000 .71600 .00000 .71600 .00000 .71600 .00000 .71600 .00000 .71600 .00000 .71600 .00000	4.960	167.910	41310		26640		2 6	01140	.00380	-1,23600	00000	04069.	00000	
179.820 .05350 .06110 .00540 .05770 .02230 -1.23700 .00000 .71600 .00000 17500 .00000 17500 .00000 17500 .00000 17500 .00000 175.800 .00510 .00520 -1.21910 .00000 .95590 .00000 175.800 .2864030620 .00750 .01560 .00750118430 .00000 .76690 .00000 176690 .00000 176690 .00000 .76690 .00000 .76690 .00000 .76690 .000000 176.800 .00000 .76690 .00000 .76690 .00000 .76690 .00000 .76690 .00000 .76690 .00000 .76690 .00000 .76690 .00000 .76690 .000000 .76690 .00000 .76690 .00000 .76690 .00000	4.960	163.860	. 2022			30.0	2 9	0.510	-, 66200	-1.23830	.00000	00769	00000	200031
175.760 .125600015000590 .015600018000000 .31210 .00000 .31710 .00000005900059000590005900000000000000000059000590005900059000590005900059000590	4.960	179 A20	0.000		00000	onn'-	2 1	. 01490	00780	-1.23700	.00000	71500	2000	00903-1-
17.500 .2644000730 .0166000730 .1.20100 .00000 .03590 .00000 169.660 .3651036350 .01460 .03220 .00280 .1.16430 .00000 .76690 .00000 179.650 .3651036350 .01460 .03220 .00280 .1.17000 .00000 .75640 .00000 179.650668400247000130 .0719000000 .1.21930 .00000 .51960 .000000	940	124 240	0000		1	- 000	0	.05170	.02230	-1.21910	.00000	11917	00000	01.23700
169.660 .3831038350 .01460 .03220 .00730 -1.18430 .00000 .76690 .00000 178.850 .00000 .05240 .00000 .00000 .75690 .00000 .75690 .00000 .75690 .00000 .75690 .00000 .75690 .00000 .75690 .00000 .75690 .00000 .75690 .00000 .75690 .00000 .75690 .00000 .75690 .00000	960	200	2000		19191	5000	2	.01660	00180	-1,20100	. 55660	61600	00000	-1.21910
178.830068400627000130 .03220 .00280 -1.17000 .00000 .75340 .00000 .10000 .75340 .00000 .75340 .00000 .48800684006130 .0719006190 -1.21930 .00000 .51960 .00000 .51960 .00000		200.000	1,5004.0		30620	0075	õ	. 61960	00790	-1,18430	00000	2000	Gooda.	-1.20100
178.830048400227000130 .0719000090 -1.21930 .00000 .51960 .00000 .00000 .51960 .00000 .00000 .00000 .00000 .00000	0000	200.60	. 36310		36350	.0146	ø	.03220	.05280	1.17000	0000	5690	. 00000	-1.10450
54461 . 53587 55531 55552 . 55559 55555 . 55555 55555 . 55555	. 960	179,630	06840	•	02470	0013	ø	.07190	06000	1.21940	00000	.75540	. 00000	-1.17000
00000 . 47400.1 00000		CAAOIENT	- " 04401	-	03587	0003	_	05072	00000	2000	00000	.51960	.00000	-1.21930
									3	* 000	00000	00474	. 00000	GG343

TABULAYED SOURCE DATA, HIST THE SES

PAGE

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0416 0	DATE OS AUG 74		TAB	LATED SOUR	TABULATED SCIRCE DATA, MSFC TWT 583	FC TUT 563					e 3984
			¥	FC 505 (TAIL	MSFC 565 (TAIF) 324 IN. 01A. ET (418 MOD) WGRIT	14. ET (418)	CD) WGRIT		(899009)		(20 MAR 74)
	REFERE	REFERENCE CATA									
1008									PARAMETRIC DATA	C DATA	
LATT	N	Z		5.2590 IN.				BETA =	000	T T	44 005
BACT	M 0579		4 4 4 4	. 0000 IN.							
SCALE :	0000		u 1	. ongo IN.							
		S.	RUN ND. 57 0	0 RP	5.00	GRADIENT INTERVAL =		-5.00/ 5.00			
HACH	ALPHA	3	3	2	į	į					
4.960	064.6- 0	67460	ŧ	משטענט -		4	ซ	CAB	XPA	CFB1	Š
4.960		-,51060	•	0300		ozenn.	49200	.01830	.39850	.00000	
4.360		25020	•	02830		09110	.47750	.01820	.38730	00000	
4,960		01160		0.000	Office of	94600.	.45830	.01680	36290	. 00000	
4,962	•	20620	•	2000	06830	01360	.44660	.01400	-,35780	00000	
4.960		447.40		Denor.	. 04490	-,01910	.44180	.01440	UZ525.	. 00000	
4.960		24044	07557	04170	. 06920	01230	.44250	.01490	30150	00000	
4.960		2000	20000	03310	5K. 20	01960	.44620	.61640	BORGO.	ממטט	
	3	08648	•	03980	02050	.00210	.44700	.01470	.68270	DOUG.	
		000	80.00	00397	-, 00062	-, 00353	-,00204	00030	01682	00000	
			¥.	C 583 (TAIF)	MSFC 583 (TAIF) 324 IN. DIA. ET (418 MD) WORLT	1. ET (418 HG	D) WGRIT		(M99010)		(20 MAB 74 1
	REPERENCE DATA	CE DATA									
								•	FARAMETRIC DATA	DATA	
b b	.7420 Se. IN	- IN YORD	#	3.2590 IN.							
- 047	.0720 IN.		41	.0000 IN.				DC.14	. 000	E	45.000
SCALE :	.020 IN.	Sec.		3000 IN.							
		3	RUN NO. 67 0	RNY #	5.01 GRA	GRADIENT INTERVAL = -5.00/ 5.00	WL = -5.0€	00'5 /6			
HECH	ALPHA	ž	2	Y.	CYNE	Ē	đ				
4.960	10.490	.63930	.68020	-,04110	BAABD		,	243	X と と	<u> </u>	ደ
4.960	12.400	.65100	1,02850	04570	OADAD	Done -	00074	. 02220	.35060	.00000	.45120
4.960	16.460	1.19450	1.32180	06020	George Control	20020	7697	. 02240	.37250	. 00000	45650
4.960	20.510	1.59090	1.53750	07510	00000	vieto	49540	.02280	.39020	. 00000	.47250
4.960	24.590	2.06780	1.73380	02230	2 400	מינים -	00116.	. 02310	.41460	. 00000	.66780
4.960	20,620	2.50440	1.97640	Cotan -	00000	04610	. 52870	.02375	.43680	. 00000	25.480
4.960	30.560	2.87140	P. 04240	09090	0000	D2050-	.54360	.02340	.44530	. 00000	58010
4.960	20,510	1.57690	1 81440		01910		.55240	. 62330	45890	.00000	2000
	CAACIENT	15699		00000	00940	05070	. 50690	. 62375	.41560	00000	2000
				10000	00196	00130	. 66397	90000	. 66510	. 00000	00000
										:	3 3 3

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	#37 B
	C TWT 563
A CANCELLO	#SF
	TABILATED SOURCE DATA, HISTO THE 563

PAGE 18	(R99D11) (20 MAR 74)	PARAMETRIC DATA
INDULATED SOURCE DATA, HISTO TAT 563	NGFC 583 (TAIF) 324 IN. DIA. ET (418 MOD) WGRIT (R9)	PARANETI
		REFERENCE DATA

SALE :		96. IN X	NO.	50	3.259	3.2590 IN.								
	41 0576. 41 0570.				000	.0000 IN.				BETA	000.	Ŧ.		45,000
		ã.	RUN NO.		91.0	85. H	4.93	GRADIENT INTERVAL :		-5.00/ 5.00				
MACH		3		3		£		Ē	ť	4	•			
2.960	30.340	5.37690		2.67780	ĺ	12310	11440					•	ē	ዷ
4.960	\$2,290	5.62150		2.90740	ľ	14946							00000	58150
4.963	56,330	5.16410		S. GWOAR			2000		.57369		,49260	•	00000	.57360
4.960		6.67970				70000	16990		54130	•	.49710		00000	54130
4.960		7 24630				11300	14790		.50730	, 00000			00000	
4		1,5003.		5.56190	•	09460	. 09550	3 09350	.48650	.00000				e de la constante de la consta
		25550.		3.56450	•	11320	.13200	0.09470	.42450	00000			200	30000
		7.69150		3.59465	•	.,11830	10130		19040	2000			nonon ·	.42450
36.4	60,350	6.63260	•	3.45015	•	11460	0.000		2000	onno.	•	•	00000	38040
	CRADIENT	.12841		OACK?		00000	1000		00756.	.00000	•	Ī	00000	.53700
							2001		08600.	,00000	.00059		00000	-,00950
				¥	FC 38:	S (TAIF)	324 IN. D	MEFC 303 (TAIF) 324 IN. DIA. ET (418 MD) WARIT	CO WAIT		(R99012)		(20 MAD 74	2
	ACTORON	SACE DATA												
											PARAMETRIC DATA	COATA		
	-	Z	10 mg/m	•	3.2590 IN.	ž					000	i		
- Late				•	.0000 IN	ż						Ē	5	300.00
SCALE :	. 8030		as Co	•	.0000 IN.	ż								
		2	3 3	0 /26		RNY :	4.92 GR	GRADIENT INTERMIL =	100'S- = 18'00'	00'8 /00				
#DY#	AL PHA	Ž		4	•	2	4	ŧ	į					
4.960	60,540	0.3330		1 3442A	,	2000	2000	3	5	CAB	XPX	Ē	-	8
4.960	42.440	44790	,		•	0000	onean.	10650	.21620	00000	.51300	00.	00000	
4.940	24.4	20101		0.60140	i	16690	01310	10630	.14570	.00000	.51550	G	00000	2011
100	20.00	0.000	•	9.1000	i	-,21460	.10700	10690	01430	00000	51940			2000
2	200	20000		218130	•	14190	.06120	10070	-,25640	00000	52550	8	0000	20000
200		6.5544U	N	2.37850	,	14600	.08470	12620	42970	00000	41490		0000	0.8363
200.	014.00	6.57610	Pr	Z. 03060	i	-,16090	.14320	-, 10790	57960	00000	20178	2 6	200	0.42870
36.0	100.300	6.50740	-	1.89490	ï	14360	.15740	13010	- AANON	00000	34140	5	00000	57960
4.960	90,430	0.51000	e.	E. 79170	•	15290	07680	10480	09090	00000	24364	8	00000	65020
	CHADIENT	66400	•	07559	٠	.00093	05628	.0000	00000	00000	. 52550	8	00000	26560
									2000	00000	09100	8	00000	54519

				¥	C 583 (TA)	MSFC 503 (TAIF) 324 IN. DIA. ET (418 MCD) WGRIT	DIA. ET (418	MOD) WGRIT		(899053)		C RO MAR	74
	40°CA	REPERENCE DATA								PARALETRIC DATA	SATA DATA		
240	.7420	30. 12	000	•						NI STEWARD	E .		
LACF .	9720	•	YAGB R	,	. NI DECS.C				BETA =	. 000	E H		48.000
BALLY .			200		. N. DOOD								
SCALE .			ì	•	Ž								
		5	RGN NO.	3	RMAL #	4.89	GRADIENT INTERVAL =		-5.00/ 5.00				
H CH	ALPHA	3	8	C. H	Ž	- Contract	ĉ	•					
. 360	28.6	4.69290		16230	26200		•	200	2 E	メCP.	_		£
4.960		5,15020	Ĭ	24420	26920			10000	00000	.57670		00	57240
4.860	011.621 0	5.69200	*	.40520	30150			05/2014	20000	.57420	_	00	62790
4,963		6.16550		.55960	-, 32190			19026	00000	. 57010		00	53840
4.960		6.62630		68450	33660			34000	00000	. 56610	00000	90	43940
4,960		7,01860	.0	62860	0.000			53150	00000	. 56450	.00000	00	-,33150
₹.860		7.23430	d	94260	04.44			21240	00000	.56190	.00000	80	-,21240
4.960		6,15370		43690	2010			-,15280	.00000	.55980	. 50000	00	15280
	J	-11700	•		26136		•	43600	.00000	.57010	00000	8	43800
				:		91000.	.00115	-, 02599	. 90000	.00081	. 00000	8	02599
				HSFC.	563 (TAIF	324 IN. 01	MSFC 563 (TAIF) 324 IN. DIA. ET (418 MD) WGRIT	D) WGRIT		(B\$9014)		20 MAR 94	2
	REFERENCE	EDICE DATA											
									_	PARAMETRIC DATA	DATA		
EG .		\$4. IN X46.P	10 Q.	3.25	3.2590 IN.					1			
b	.9720 IN.		11)	00.	.0000 IN.				EN IN	000.	Œ		45.000
SKALE II	.0000	8	u Q.	8	.0000 IN.								
		S. N.		95/ 0	R	5.00 GR	GRADIENT INTERVAL =	VAL = -5.00/	5.00				
# C#	FA	3	3	_	Š	Contract	ě						
4.960	149,280	2,43350	12603	000	-, 16610	CARTO	20000	4	CAB	XPX L	<u> </u>		ä
4.960	147,360	2,71980	10270	2	16810	09480	04010	01808	00000	. 59160	. 00000		96910
200	143.270	3.30400	00220	20	.17120	Desed	04030	2000	onnon.	. : 6900	. 00000	-	94780
4.960	139.210	3.87470	.06290	06.	18040	06340	01000	01089.	00000	. 58260	. 00000		-,69010
4.960	135.120	4.43170	.13110	10	-,19010	. 08350	04660	10000	ponon.	. 57950	. 00000		62560
4.960	131,100	5.02910	.27080	90	19420	09760	07670	2000	00000	. 57730	.00000		74010
4.960		5.27370	.29070		20760	00011	00000	19060	.00000	.57310	. 00000		.66060
4.960		3.64610	.02910		18670	0.00		D*629*-	00000	. \$7290	. 00000		.62340
	CRADIENT	1412R	62119	•				コカマリウィ	00000	C	0000		
		21.1.	- 20	2	26100	4.00077	AUG CO.			3			. 82490

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	MUCHICA SCHOOL DATA, MIST TWO SES		PAGE 18
•	MSFC 563 (TAIF) 324 IN. DIA. ET (418 MOD) W/GRIT	(899015)	(R\$9015) (20 MAR 74)
ACTABACE DATA		PARAMETRIS DATA	
.7420 54. IN 2040 E. .9720 IN. THEP E.	3.2590 IN. .0000 IN.	BETA = .000 PHI	* 45.000

5.00 GRADII
0610006160
06140
. 08130
. 06140
. 08600
.11240
04440

		MSPC 383 (TAIF) 324 IN. DIA. ET (418 MOD) WERIT			(R99016) (20 MAR 74	6	1 08)	~ 2 3	
	ROTTE CATA			PAR	PARAMETRIC DATA	DATA			
EAG BAG KAE	.7420 50, IN MAGE .9720 IN. THUP .9720 IN. EMGE .6030	 3,2590 IN. .0000 IN. .0000 IN.	BETA &		000	,000 PH1	4	45.000	

		3	\$ \$	ž	A L	4.96 GR	RADIENT INTE	NTERIM & -5,007		3.00		
Ŧ	AFPIA	3	ರ	Ŧ	Y.	4	Ē	2	3	c	3	•
4.960	109.620	51010		2060	-,03630	03050	04240	0114	, -	920	20100	
3	167.910	48790	*	7100	-,05030	04100	03560	0110		900	00000	00000
0	165.860	23500	7	4150	04650	01210	05150	000000			06260	00000
2	179.635	05640	o	3880	97.0	06060	24.20	1 28990		3000	00189	00000
2	175,800	. 12330	21	0520	05320	04580	00100	1 91640		3 6	01204	00000
2	171.600	.28660	, s	4290	66550	07420		2000	5 6		2000	00000
2	169,660	.41100	ň	4750	06620	04450	01100	1 90440	2 4	3 6 6 6 6	00000	00000
2	179.830	06270	Ö	-, 02290	54610	02620	04290	23490			2000	00000.
	CHACIENT	04539	ó	8656	40100.	03083	.00232	00023	0	0000	10000	00000

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2	2	

### 324 IN. DIA. ET4416 NCD) W/GRIT (R99017) - 6.95 GRADIENT INTERWAL E -5.00/ 3.00 - 11460 . 02530 . 773150 .09960 .35160 .0 - 1125000730772150 .09960 .35160 .0 - 1125000730772150 .09960 .35160 .0 - 112500074070560 .09130 .37210 .0 - 112500074070560 .09360 .37210 .0 - 112500074070560 .09360 .37210 .0 - 112500074070560 .09360 .37210 .0 - 112500074070560 .09360 .37210 .0 - 112500074070560 .09360 .37210 .0 - 112500074070560 .09360 .37210 .0 - 112500074070560 .09360 .37210 .0 - 112500074070560 .00730 .37260 .00 - 112500074070560 .00740 .37260 .00 - 112500074070560 .04460 .37260 .00 - 112500072000720 .56500 .04660 .37260 .00 - 112500027000720 .56500 .04660 .37260 .00 - 112500027000270 .3240 .37260 .00 - 112500027000270 .3240 .37260 .00 - 112500027000270 .3240 .37260 .00 - 112500027000270 .3240 .37260 .00 - 112500027000270 .3240 .000 - 112500027000270 .3240 .000 - 112500027000270 .3240 .000 - 1125000270 .00270 .3240 .000 - 1125000270 .47720 .02270 .3240 .000 - 1125000370 .47720 .02270 .3240 .000 - 1125000370 .47720 .02270 .3240 .000 - 1125000370 .47720 .02270 .3240 .000 - 1125000340 .47720 .02270 .3240 .000 - 1125000340 .47720 .02270 .3240 .000 - 1125000340 .47720 .02270 .3240 .000 - 1125000340 .47720 .02270 .3240 .000 - 1125000340 .47720 .02270 .3240 .000 - 1125000340 .47720 .02270 .3240 .000 - 1125000340 .47720 .02270 .3240 .000 - 1125000340 .47720 .02270 .3240 .000 - 1125000340 .47720 .02270 .3240 .000 - 1125000340 .47720 .02270 .3240 .000 - 1125000340 .47720 .02230 .3240 .000 - 1125000340 .47720 .02230 .3240 .000 - 1125000340 .47720 .02230 .3240 .000												
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10.350	96	5.40	0.00	Seene.		.12270	01780	.70130	.06100	30430	0000	20000
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######################################	1	000	02000	1.1301		.11280	03750	.72760	10180	48200	00000	. 62730
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ALPTA CHA CLAM CTH CTM CTM CRADIBLT INTERNAL = -5.00, 5.00 ALPTA CHA CLAM CLAM CTM CTM CTM CRADIBLT INTERNAL = -5.00, 5.00 -9.990772706822010890 .08470 .02380 .57180 .04900 .37880 .04320 .05240 .00220 .00220 .56600 .04900 .37880 .02340 .02240 .02240 .00220 .03240 .0226003920 .00220 .03270 .04900 .33620 .03240 .0226003500 .00220 .00220 .02460 .04960 .33620 .00220 .02240 .02260 .04060 .04960 .33620 .00230 .00230 .00230 .04960 .04960 .33620 .00230 .00230 .00230 .00230 .00230 .00230 .04960 .02360 .04960 .02360 .002300 .002300 .002300 .002300 .00230 .002300 .00230		CRACIENT	.06526	.11127		.00124	- DC213	Done -	200	20400	00000	.61030
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-9.930772708822010830 .06470 .07290 .57180 .448 .XFPA9.9307257092240 .06240 .01240 .57180 .44870 .38620 .38620 .24860 .73890 .38620 .20240 .02240 .01040 .59910 .44290 .38620 .24860 .49860 .39890 .39890 .90240 .49260 .00220 .59500 .44290 .39620 .39890 .90240 .49260 .00230 .90240 .0729001220 .59190 .44290 .39690 .42800 .20240 .20220 .59190 .44090 .20240 .90240 .00230 .90240 .90220 .00230 .90220 .20220 .59190 .44090 .20240 .90240 .90220 .00220 .90220 .20220 .39890 .90240 .90220 .00220 .90220 .20220 .39890 .90230 .90220 .00220 .90220 .20220 .39890 .90240 .90220 .00220 .90220 .20220 .39890 .90230 .20220 .90220 .20220 .39890 .90230 .90220 .90230 .90220 .90230 .90230 .90230 .90230 .90230 .90220 .90220 .90230 .90230 .9022	ž,	ALPHA	3	Ť	, A	35	ė	į				
### CAMPARA CA	Ę	-9.930	75270	84220		06430	200	5	3	スピメ	. G E	å
***.090251203912006610 .012400 .55910 .54250 .36250 ***.200 .03240 .0266005610 .0266001220 .55910 .54250 .31200 ***.320 .30390 .4332005610 .0775901220 .556130 .43620 .33620 ***.320 .30390 .4332006610 .0775901220 .56130 .43620 .33660 ***.320 .30390 .4332006110 .0775901250 .56130 .44000 .38950 .26850 .05360 .02360 .56130 .44000 .44000 .05360 .00623 .00623 .00623 .38950 .44000 .44000 .053600027800623 .06511 .002286 .44000 .44000 .44000 .05360 .00230 .44000 .44000 .0230 .5611 .002286 .44000 .46350 .00230 .46390 .02330 .35460 .25400 .25260 .03360 .46390 .02330 .35460 .25400 .03240 .03240 .02330 .46390 .02330 .35460 .25400 .25260 .35460 .03240 .03240 .46310 .02230 .35460 .25350 .35460 .25260 .35460 .25260 .35460 .03240 .03240 .46310 .02220 .35460 .35460 .25260 .25260 .35460 .25260 .35260 .35260 .35260 .35260	2	-4.010	-,57560	22900		0,000	00000	. 57160	00670	.37890	.00000	.52280
**200 .03240 .0266003640 .0666000220 .56060 .04660 .43960 .05690 .04660 .43960 .04660 .43960 .04660 .43960 .04660 .43960 .04660 .43960 .04660 .43960 .04660 .43960 .07290 .43600 .04660 .43960 .38960 .06360 .06360 .06360 .43960 .38990 .63240 .63240 .05660 .0638001020 .56060 .04800 .38990 .43060 .05660 .06380 .0027800023 .05011 .00296 .44000 .62340 .0027800023 .05011 .00296 .44000 .44000 .05270 .0027800023 .05011 .00296 .44000 .44000 .05360 .0027800023 .05011 .00296 .44000 .44000 .05360 .00370 .45990 .02330 .33100 .44970 .25240 .23350 .23350 .33160 .23350 .25240 .23350 .02330 .33160 .4970 .46390 .02330 .23350 .33140 .48990 .02282 .33160 .48970 .02280 .22330 .22330 .33180 .44200 .02280 .22330 .22330 .33180 .44280 .02282 .33160 .44280 .22282 .33160 .44280 .222	2	-3.890	25120	39120		00480	00000	00996	54820	.36250	. 00000	51770
4.320 .30390 .43200 .0729002250 .56560 .04660 .43960 .35660 .04660 .43960 .35660 .04660 .43960 .35660 .04560 .35660 .36560 .36600 .36560 .36560 .36660 .3	24	.200	.03240	Cohen	01900	DO BOOK	2010	.55910	,04250	.31200	00000	.51660
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10.360	Į,	4.400	De159.	200		06240	01240	.55720	. C4340	.33660	00000	
CRADIENT GEVEL . 12660 . 0638001020 . 35970 . 04400 . 44400 . 4440005800580058001020 . 35970 . 04100 . 444000102001140 . 488900230	2	10.360	ALORD	2000	01100.	.07150	02550	.56130	. G4 82G	.37100	00000	
### NO. 670 G. 10005 .00156 .0023000278 .00100 .44000 .44000 .44000 .00286 .0028 .00023 .00011 .00296 .44000 .44000 .00286 .00280 .00023 .00011 .00296 .44000 .48700 .48800 .00230 .44000 .48800 .00230 .48800 .00230 .38400 .48800 .00230 .38400 .48800 .00230 .38400 .48800 .00230 .48970 .48800 .00230 .38400 .48800 .00230 .48970 .48870 .00280 .38800 .48870 .00280 .38400 .48800 .00280 .38800 .48870 .00280 .38800 .48870 .00280 .38800 .48870 .00280 .38800 .48870 .00280 .38800 .48870 .00280 .38800 .48870 .00280 .38800 .00280 .38800 .00280 .38800 .00280 .28800 .00280 .00280 .00280 .38800 .00280 .00280 .00280 .00280 .28800 .00280 .28800 .002800 .	2	200	64240	24967	05.00	.07450	03280	. 56560	C4850	38990	00000	0000
RUM MC. 6/0 RN/L E 4.97 GRADIENT INTERML = -3.00/ 5.00 ALPHA CNM CLIM CYM CYNH CBL CA CAB KCP/L -9.790620707786006400 .05380 .01350 .46890 .02330 .36460 -7.690463506444006400 .05380 .01350 .46890 .02330 .35460 -7.69025080353900340 .05380 .05380 .46570 .02330 .35100 -8.00 .03240 .0280004310 .07580 .06220 .46570 .02070 .48970 -8.20 .27380 .3769004670 .05370 .46570 .02580 .3760 -8.20 .36230 .6626004070 .0751001760 .47250 .02280 .37160 -8.20 .27360 .27360 .04390 .04390 .05370 .46310 .02380 .38380 -8.20 .203900 .04430 .06340 .06370 .46310 .02380 .38380		COADIENT	(TE 30)	1000	00000	.06380	01020	.55970	. 541 50	44.000	00000	2000
RUM NC. 6/0 RN/L c 4.97 GRADIENT INTERVAL = -5.00/ 5.00 ALPHA CAM CAM CYM CYNH CBL CA CAB KCP/L -9.79062070756005400 .05360 .01140 .46890 .02330 .36460 -7.6902635033350 .03340 .07550 .01350 .46390 .02330 .35460 -7.690263633350 .03340 .05570 .00380 .46390 .02270 .35460 4.260 .5240 .375900440 .0547003040 .46370 .02260 .34340 6.280 .56230 .6626004670 .0751001760 .47270 .02260 .34340 10.200 .71260 .7750904590 .0579003040 .47270 .02280 .34340 6.280 .6625004570 .05570 .46370 .46310 .22240 .34340			5	6000	96.00	. 00230	00278	00023	11000.	.00296	.00000	00035
ALPHA CNM CLUM CYM CYMM CNM CA CAB KCPAL -9.790620707766005400 .05380 .01140 .46890 .02330 .35460 -7.890463505644005640 .07550 .01140 .46890 .02330 .35100 -7.890259803359003440 .04570 .00380 .46570 .02230 .35100 4.800 .05240 .0280004310 .07580 .00580 .46570 .02070 .48970 6.200 .27380 .3769004440 .0547003040 .46570 .02290 .34340 10.200 .71260 .7760004590 .0579003040 .47270 .02280 .37160 2.200 .03900 .0443004590 .05790 .05790 .46310 .02280 .34860			2		8%7. a		DIENT INTERN					
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-7.690644006440 .07550 .01140 .46690 .02130 .3646064406440644064406440644064406440644064406450645025303510025300340045700447004	2	-9.790	62070	- 77AAA	G6400		e e	5	CAB	XCP.	CFB1	18
-3.830209803350003340 .04570 .00350 .47920 .02530 .391002090209800334004570 .00530 .46570 .02570 .3044004570065700257048970048700487002570489700487003470048	096	-7.690	46350	64440	00000	desco.	.01140	.46690	.02330	.36460	,00000	ARRED
.25240 .02540 .02540 .02580 .00580 .465390 .02160 .30440 .02160 .20440 .02580 .02580 .02580 .02580 .02580 .02580 .02580 .02580 .02580 .02580 .02570 .02590 .24590 .02540 .02540 .02540 .02540 .02540 .02540 .02540 .02540 .02540 .02580 .24340 .07510 .07510 .07510 .07580 .02580 .22580 .37160 .2250 .02590 .02590 .02590 .02590 .02580 .2	084	-3.630	2000		0.000	00070	.01350	.47920	.62330	.35100	00000	
4.260 .02570 .02570 .02560 .02580 .02570 .02570 .48970 .48970 .02570 .48970 .48970 .02570 .28970 .48970 .28730 .28730 .28730 .48970 .28730 .46810 .025570 .38340 .28730 .28250 .28350 .28740 .2	2	200	0.000	30000	0.00	.04570	06390	.46390	. 52165	.30440	2000	04000
6.240 .46510 .66260 .04470 .05470 .46510 .02690 .34340 .0540 .46510 .02690 .34340 .05240 .05270 .02270 .02280 .34340 .05280 .03240 .02270 .02270 .02280 .02270 .022	2		2000	70690	1.04310	.07580	.05620	.46570	02070	48970		02295
0.5250		2000	00000	37890	04820	.05470	03040	.46510	0250	2000	2000	. 44400
10.000 .71260 .04590 .05790 .00040 .00040 .05750 .00400 .05750 .00400 .0	2	3	. 26230	.68265	0467D	.07510	01760	47270		240	00000	.4441C
. 05550. U3605. 056960. 056960. 056960. 05550. 05550. 05550. 05550. 05550.	2	00%.01	.71260	.77659	D4590	05750.	03040	47960		19176	. 00000	44960
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MSFC 583 (TAIF) 324 IN. DIA. ET (418 MOD) W/CRIT

(R99019) (20 MAR 74)

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DATE OS AUG PA	AUG 74		TABU	TABULATED BOURCE DATA, MSFC TUT 583	E DATA, MSF	FC TMT 583				•	PAGE 15
			Ą	MSFC 565 (TAIF) 324 IN. DIA. ET (418 MO) WGRIT	324 IN. DI	IA. ET (418 M	CO) WGRIT		(899019)	~	ED MAR 74 1
	REFEREN	REPERENCE DATA							PARAMETRIC DATA	DATA :	
S. S	.7420 39. IN	- IN DARP	4	3.2590 IN.				Br.	6		000
LAGY	.9720 IN.		ŧ	.0000 IN.					200.		40.000
640	. 8720 IN.		u	.0000 IN.							
SCALE *	0.00										
		2	RUN NO. 1007 0	O RIV.	7.01 CR	CANDIENT INTERVAL & -5,00/	3. 2 -5.	00' 8'00			
MACH	AL PAIS	S	¥	Š	3	ē	3	975	3	į	
1.946	51,300	6.69770	4,00030	,	16379	23910	50880	00000	ATEN	CP81	2
1.946	93,220	6.97180	4,09530	-,01210	.15230	-,24890	. 50080	00000	2004	2000	Deene.
1.946	37.320	7,52620	4.18730	00750	01160.	27390	.48260	00000	48580	00000	09000
1.946	61.440	6.11920	4.43100	09650	.14120	28560	.50620	.00000	48760	00000	30620
2.946	65.450	8.34990	4.10690	07080	00640.	29730	.51120	.00000	49700	. 00000	.51120
1.46	69.460	6.65990	3.99400	04650	.01180	31070	42090	.00000	. 50230	. 00000	42090
	2000	5.75440	5.69350	08880"-		-,31440	.36040	. 55000	.50520	. 00000	36040
	2010107	10200	4.06979	-,05650	13420	27620	.53090	00000	.49210	.00000	.53090
		10306	-,00396	05261	00861	00370	-,00550	00000.	.00134	.00000	00550
		RUN NO.	NO. 897 0	O RN/L =	6.23 GRA	GRADIENT INTERVAL = -5,00/	.VAL = -5,0	30, 8.00			
MACH	ALPHA	Š	3	CYM	S. C.	ē	2	845	,	į	
8.479	50,610	6.23460	3.20210	04690	.11220	25030	.60aen	טטטטט	AOTON.		4
27.	52.740	6.50150	3,24250	-,05970	.02340	27030	.60460	00000	49580	00000	00000
4.470	36.790	7.09990	3,37850	G629D	.03660	-,28960	. \$8090	00000	18984	מטטט.	DOMEST OF THE PERSON OF THE PE
4.479	60.860	7.64580	3,46330	06460	06800.	-,30970	.54760	00000	. 50360	00000	09090
24.0	016.79	9.104.10	3.54160	06730	00030	-,32800	.51440	. 65550	. 50650	00000	51440
5.479	68.930	8.49930	3.67840	07300	06830	34370	.45160	.00000	.50730	00000	45160
24.4	70.640	2.64450	3,70420	06760	09810	35140	.41250	. 66659	.50600	.00000	41250
	000.00	10100	5.49550		00100	30710	.55220	00000	. 50290	. 00000	.53220
	N TO THE PARTY OF	.16173	6262n*	16000	-,00856	00463	-, 60952	00000	7000.	. 00000	25600
		RGN NO.	0 /06 '0	D RNVL =	4.94 GRA	GRADIENT INTERVAL : -5.00/	VAL = -5.0	0/ 5.00			
#D#	ALPHA	ş	3	Č	NA.	Ē	đ	ă	1	•	
4.960	50.410	6.12130	3,00540	06840	.05370	27890	.65040	00000	77.	Chair	8
4.960	52,320	6.34360	3,18590	-,07260	.05630	27869	.63700	00000	02/64	0000	0 0000
4.960	96.490	7.09100	3,35150	09700	. 01860	30950	.61620	00000	5000	0000	00,500
4.960	50.400	7.65010	3,51120	09860	00500	-,32860	.57600	00000	50270	00000	00000
7.000	07.750	6.16570	3.64110	59720	~. 05590	35000	.52510	, 69698	. 50500	. 00000	0.548
96.4	68.420	6,58620	3.74140	10060	08500	-,36310	.46180	. 69569	. 50680	00000	46160
4.200	70,320	0.73240	3.75460	-10640	13000	37260	.42760	60000	.50780	. 00000	2000
	000,000	7.06590	5.52140	11100	01520	32320	.57540	, 66550	.50260	. 00000	67580
	GRADIENT	,13426	. 03636	-,00167	00895	00493	-,01110	, 65599	09000	.00000	01110

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	ACFERE	ROFERCINE CATA							PARAMETRIC DATA	DATA	
340		Z	M P3	3.2590 IN.				BETA ==	. 000	1	90,000
LACT R		IN.	The second	.0000 IN.							
BAEF .	1 0576.	IN. 204	D. H PANCE	.0000 IN.							
SCALE E	0000					٠					
		2	RUN NO. 99/ 0	RP.	6.80 CRA	GRADIENT INTERVAL =	1VAL = -5.00/	00' 8'00			
MACH	AL PHA	3	28.0	CYN	38.5	ē	į	97.7	5	ģ	
1.962	61.900	9.35680	•	00730	15200	34100	-11140	00000	4204		<u> </u>
1.962	63.390	9.45110		.02310	16980	34820	18530	0000	Server.	2000	0 1 2 0 1
1.962	67,360	9.60530	•	06360	17920	35710	32390	00000	0000	2000	00000
1.962	91.350	9.68580		.09330	-,20180	-,36570	43990	00000	53780	00000	DECAMP OF
. 862		9.68110		.12930	-,21230	37240	54850	00000	54470	00000	. 5484D
1.962	99,250	9.53620	1.73300	.12700	-,21610	-,37630	65100	00000	55090	00000	64100
1.962	101.130	9.43670	1.56380	.12470	-,22280	-,36580	-,69960	00000	55370	00000	09869
1.962	91.340	0.66990	2,47630	.12500	22970	36410	-,42240	00000	53810	00000	42240
	CRADIENT	.0507	-,09212	.00640	00341	00137	-,02960	00000	.00172	00000	-, 02960
##CH	ALPHA	3	¥	Š	ANG C	ਵ	ð	CAB	X Y	ig d	S S
3.479	91.060	9.21130	3,48000	04600	24010	.36010	19010	מטטטט	A A A B	00000	2000
3.479	62,965	9,33450	3.40680	07850	-,14940	36110	10510	00000	25916	00000	0.00
5.479	86.950	9.36330	3,19320	08070	16720	37150	-,10120	00000	52320	00000	00101
3.479	90.950	9.43580	2.79160	-, 66260	20300	37390	-,30080	00000	.53110	00000	Dance.
2.47	94.920	9.44620	2,37360		21580	37920	44690	00000	53880	00000	44690
2.470	96.670	9.35710	1,93450	05730	23040	38440	60020	.00000	. 54650	00000	60020
24.7	100,750	9.27640	1.77030	57210	19930	36070	66050	.00000	.54930	.00000	66050
3.479	90.930	9.43080	2,83360	08000	18410	37680	-,29890	.00000	. 53030	.00000	29890
	CRACIENT	.00332	C 6363	. 00002	-, 00124	00119	-, 04363	.00000	.00170	, 00000	04363
		3	RUN NO. 87/ 0	RNL =	4.92 GRA	GRADIENT INTERVAL = -5.00/	WL = -5.0	90' \$ '00			
Đ	ALPHA	3	CLMM	CAH	CYNE	ළ්	ð	S	KPA	88	ď
4.960	80,560	9.23490	3.65130	09870	-,20370	37820	.27470	,00000	.51360	00000	27470
4.960	62,460	9 4530	3.58270	68580	16870	36940	.20400	. 55555	.51570	00000	00404
4.960	66.470	9,45530	3.37626	00000	-,21680	36990	,05620	.00000	. 52050	00000	06820
4.960	30,490	9.43450	3.08940	05780	25030	36060	20940	00000.	. 52560	.00000	0.809
4.980	94.470	9.52200	2.62390	08970	-,22570	40440	41590	. 66559	. 53450	00000	41590
4.980	96.440	9.47750	2.23670	£ 19990	18520	-,38610	-,56230	. 65560	.54140	.00000	45.940
4.960	100,330	9.28190	2, 58560	C8940	17450	39300	06079	.00000	.54340	. 00000	64.50
4.960	90.470	9.42090	3.13260		- 293KB	10710	2000			1	
				-		1 - h	000000		0.426		C44.50



1)

CATE	CARE 03 AUG 74		TAB	TABILATED SOURCE DATA, HISFC TUR 583	E DATA, MS	SEC TAS SOS				8.	PAGE 17
			1	MSFC 583 (TAIF) 324 IN. 01A. ET (418 MOD) WGRIT) 324 IN. 0	11A. ET (418	HOD) WERLT		(899021)		2
	REFE	REFERENCE CATA									
PAG	7420	7420 80. 1M W.	999						PARANETRIC DATA	DATA	
LACT	. 9720 IN.	:		3.63%U IN.				BETA =	000	X X	000
BROF	.9720 IN.		2000 11	. 0000							
SKALE .	. 6530										
		25	RUN NO. 1097 0	/ 0 RK/L #	7.01 GR	HOLENT INTE	GRADIENT INTERVAL = -5.00/ 5.00	00' 8'00			
MACH	AL PHA	20	9	2	į	1					
1.931	1 126,790	30	42850	•		9	ช	CAB	XPX		Ja J
1.931			-,36320		1,10370	23660	64800	00000	.59470	00000	-,64600
1,958	1 122,750		24050		2017	24850	59690	00000	. \$9240	.00000	59690
1.951	116.660	•	07495		196034	26980	49700	.00000	. 58850	.00000	49750
1.931	114.590	•	46080		00002	29070	-,44260	.00000	.58670	00000	44260
10 to		_	85610		Deen3	30410	-,32370	.00000	. 57240	00000	4252
1.931			1024.50		18260	31550	16080	.00000	56470	00000	20000
1.951		7,40350	09640	737760	-, 18680	32410	06180	.00000	56180	00000	76160
	CRACIENT	-,12601	BC160		18130	~.2862₫	43970	00000	. \$8020	00000	00100
			1	9200	90000	.00425	02755	00000	.00169	.00000	. 02944
		32	RUN NO. 65/ 0	O RN/L =	6.25 GRA	DIEM INTER	CAADIENT INTERVAL = -5.00/	0/ 3.00			
FACH	A FILA	Ž	2	3		1					
3.479	129.200	5.82290	07500	20.56		- F	ð	SAB CAB	አየ የ	CHB1	28
3.478	127.300	6.09190	62.500	20460	0,0000		71640	.0000	.58460	. 60000	21640
5.479	_	6.69080	יוסנים.	00433	- 18620	23930	67700	. 95600	.58170	. 0000	200
5.47	119.160	7.21770	32920	26240	18990	~, 26220	57510	. 95990	.57930	. 00000	2340
2.478	115,100	7.72890	54440	08/03-	UB470	27740	47780	.00000	.57450	00000	101010
5.479	111.060	8.15510	00016	2000	10860	29700	-37120	00000	. 57020	. 00000	200.10
3.479	109.170	6.54170	94740	1,56140	-,12530	28110	25550	00000	.56520	. 00000	20110
5.47	119.160	7.25650	28840	100000	00261-	32360	-,19760	. 06550	. 56270	.0000	04604
	GRACIENT	12643	05011	90500	00000		47580	. 00000	.57560	.00000	47860
					eceno.	68600	02586	00000.	40100	. 00000	02566
		RUN NO.	NO. 64. 0	. RW	4.92 GRAD	GRADIENT INTERVAL =	VAL = -5.00/	2,00			
¥CH	AL PHA	3	¥	A		ŧ					
4.960	129,600	5,64270	. 06080	26750	0.501.	י פוניביו	¥ 1	CAB	XCP.	1960	å
4.960	127,700	5,94120	.11160	08140	00000	00003-	72120	. 02000	. 58060	.00000	- 7219A
4.960	125.660	6.53710	.36350	36200	1,10240	04352	68190	00000	. 57920	. 00000	00189
4.960	119.630	7,15600	.48580	-,31760	10210	00000	58760	00000	.57440	. 00000	-,56750
4.960	115.590	7.67680	.62750	34650	12460	00000	-,48690	. 66669	.57560	. 95530	0.48640
4.960	111.610	0.03690	. 64300	.36260	1,600	033031	-,37450	, 05055	. 56815	,00000	.37450
4,960	159.690	6.28195	.99200	1.35450	10801	256790	25650	. 00000	. 56420	00000	2.48.5
4.960	119,635	7.08000	.45610	29990	1 503.00	09900-	25209	. 65555	. \$6150	. 50000	20000
	GRACIENT	13176	04570	. 00502	90100	00000	49280	. 05550	.57176	. 60059	.49240
				•		Joseph 1	-, 02623	• 80000	. 60093	. 95500	02623

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

DATE 03 AUG 74

(R99022) (20 MAR 74)

	ACFERENCE DATA	CE DATA								PARAMETRIC DATA	C DATA		
24EF :: 54EF :: 54AE ::	.7420 58. IN .9720 IN. .9720 IN.	ž	2 d 39472	3	.0050 IN. .0050 IN.				BETA =	900.	Ē		000 000
		ĕ	Š Ž	RUN NO. 129/ 0	RAY E	6.93	GRADIENT INTERVAL =	1VAL = -5.00/	07 5.30				
HOW	AL PHA	ž		£,	HA.	CAN	ඡ	ర	845		CPB.	_	ጀ
1.959	147,980	3.64290		.44340	19200		·	-1,09490	. 00000	.60250	ē.	.00000	-1.09490
1.659	145,960	4.18950		-,40950	-,18180	0 00740		-1.06670	.00000		8	000	-1.06670
4.959	141.585	5.07690		-,30450	-,1360			-1.02710	.00000		8	000	-1.02710
1.959	137,230	5,63630		-,25540	-,07330			94110	, 05556		8	000	-,94110
1.959	132,990	6.46700		.15600	03390			-,84200	. 55550		S.	000	84200
1.959	120,620	7.04390		03640	05550	8140	27760	73290	.00000		8.	000	73290
1.959	126,630	7.28900		.00100	06310	-		-,67640	. 00000		Š.	000	67640
1.959	137,410	5.59540	•	.27260	06440		-,22150	92360	.00500		ĕ.	000	-,92360
	CAADIENT	16446		. 02094	-, 0571			01981	00000		Ď.	000	01981
		R	RUN NO.	51/ 0	RNY.		5.26 GRADIENT INTERVAL = -5.00/	'VAL = -5.0	97. 5.00				
MOW	ALFHA	3		CLN*	CAH	CYN	සි	ర	CAB	XPA	9		ጸ
3.478	148.720	3,13660	·	.28180	-,12270	05150		-1,05000	.05550	. 59810	.00000	900	-1.05000
3.479	146.740	3.44520	·	-,25465	-,13250			-1.02050	. 65556	. 59530	.00	000	-1.02050
3.479	142,540	4,12030		.19730	15360			95650	cooco.	. 59060	00.	000	95650
8.479	136.370	4,78820		13700	1800C		,	88130	. 05555	.58740	00.	000	88130
5.47	134.190	5.46420		.05370	~.20950			-,79630	.00000	.58420	90.	000	-, 79630
3.470	130,040	6,15540		. G2830	-,23330		23480	-,70670	,05556	.58160	00.	000	-, 70670
3.479	128.040	6.41190		.07480	-,23536			-,66510	.00000	. 58040	50.	000	66510
3.479	138,360	4.80060	•	.15020	1804C			-,86380	eeeee.	.58790	.00	000	68380
	CRACIENT	-,15921	•	.01713	.00577			01873	. 55569	.00084	00.	000	-, 01873
		S.	RUN NO.	20/ 0	RY.	5,62	GRADIENT INTERVAL = -5,00/	VAL = -5,0	97. 5.60				
MACH	AL PHA	Š	J	₩.)	H.	Ĭ	_{ල්}	ಕ	CAB		9	-	å
4.960	149.260	2.72160	•	. 12240	13760		-,10910	-1.01060	00000	. 59030	00.	000	-1.01060
4.960	147,530	3,01950	•	07240	15700	. 02710	11560	98670	55550	·	້ອີ	000	98670
4.960	143.250	3,67290	•	.01990	13850		•	92470	00000		B.	000	92470
4.960	139,150	4.33700		. 55745	-,21540	03456		-, 65630	00000		90.	000	65830
4.960	155,070	9.05250		.12300	-,24280			T784C	00000.		50.	000	77640
4.980	131,020	S.64090		21770	-,25191	04800	21650	-,69230	00000.		00.	000	-,69230
4.960	129.000	5.93960		.25560	26530	•	22870	64990	00000		20,	000	64990
4.960	189.150	4.32390		63410	-,21650	_	17820	-,86050		.56110	00000	500	. 86030
	CAACIENT	16019	•	. 61828	. 05673	16550.	0.0000	+6L10"•	2000			000	61794

			HSFC	563 (TA1F)	HAFC 583 (TAIF) 524 IN. DIA. ET (418 HOD) W/GRIT	ET (418 HCD	WGRIT		(R99023)		1 20 MAR 74	
								ā	PARAMETRIC DATA	DATA		
	ACTACHE	E DATA										
	.7420 30.	IN YORK	it.	3.2590 IN.			_	BETA =	000	I L		200.00
	.9720 IN.			.0000 IN.								
840	.9720 IN.	ZNERP	88	.0000 IN.								
SCALE .	0630											
		RUN NO.	NO. 126/ 0	RNA =	7.04 GRAD	GRADIENT INTERVAL =	/W = -5,00/	9.00				
						ē	5	CAB	XCPA	CP61		2
E CH	AL PHA	3	3	CAM	200	04040	-1 2667B	00000	.73350	.00000		-1.26670
966.	169,340	.75680	65610	08650	0000	01000	-1.26530	00000	.70210	.00000		-1.26536
0.0	167,345	98550	67680	-,10520		06300	1 24700	00000	65090	00000		-1.24700
966	163,120	1.56630	61750	-, 15830	05050-	06360	. 21710	00000	62480	00000		-1.21710
7.0	158.850	2.21580	54010	16560	04520	DC640*-	01/12*1-	00000	61500	00000		-1.18810
3	54.510	01056.3	55210	17270	05750	11030	-1.16610	0000	60670	00000		-1.14960
2	150 240	3,70510	\$1750	2089U	05500	-14170	-1.14900	00000	חפונים.	00000		-1.11140
0000	200 000	4. 54470	48350	-,20580	-, 06310	14990	-1.11140	2000	00709	00000		-1.21350
000	0.2.04	2 22250	-,53360	-,16270	06880	06360	-1.21350	0000	00000	00000		00710
000	CAACIENT	15734	-,00861	.00538	.00279	.00578	60710	20000	aleon.		3	
		S. S.	NO. 48/ 0	RN/L =	6.26 GRA	GRADIENT INTERVAL =	WL = -5.00/	00.8 /				
					į	ŧ	7	CAB	XCP.A.	5		ጸ
7	AI GNA	20	3	Š		3	5	00000	1000	00000		-1.23190
2	169.520	.61470	-,44320	-, 0 8950	06070	01670	1.23.90	מממט.	68510			-1,22690
	0.00	77940	46050	09520	09270	16620	06077*1-		00130		50500	-1.20060
2	000.101	19070	48100	10270	04410	04320	-1.20060	מממח.	61300		מטטטט	1.16750
2.47	200	20000	47380	-,10050	02020	05430	-1.16750	יייייייייייייייייייייייייייייייייייייי	05360			1 19910
3.470	159.540	00000	102.17	10180	06860	08730	-1.12910	00000.	.61560			21631.1
2.13	193.200	00001.2	2010	10270	06780.	-,10760	-1.08130	00000	.60250		conno	00100
3.47	151.060	2.76480	00130	0.000	0.0290	12670	-1.05490	,00000	. 59900	•	00000	1,05490
3.478	149.000	3.0948G	-,29460	0.00	18.50	05760	-1.17030	.00000	.63340		00000	-1.17030
5.479	159.340	1.63700	0027	44000	00130	.00513	00671	00000*	, 00513		00000.	-,00871
	SEACULE N					S INTENT INTENT	-S.00.	00.8.00				
		2	RUN NO. 497 0	in Taylor	5.0							
			,		250	ē	ð	CAB	XPZ	E	<u></u>	£ .
¥	ALPHA	ž	T.	E L	Cospo	07270	1,21620	00000	. 72360		.00000	-1.21080
4.960	169.670	20690	41180	-,10150		E 4 6 0	1 20420	00000	.70750		00000	-1.20520
4.660		.63000	-,45350	10840			10000	00000	.67170		00000	-1,16550
040		.94320	48440	10990		01001	0,000	60000	64360		00000	-1,16070
		1.35170	47600	-,11250		-,04160	000111	Oction.	62140		00000	-1.11310
		1.85440	41590	12130		-, 06480	nicit'i-		0000		00000	-1.06690
7		0.44.4	33070	-,12500	.05230	09360	-1,06690	00000			00000	1 04540
		00000	27070	0200	06960.	10870	-1.64340	nonco.	oche.		0000	-
4.960	149.600	2007.7	10000	11280	02760	05430	-1.15550	00000	.64690		5000	

(R99024) (20 MAR 74)

WCR1T
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ET (41B
DIA.
Z
324
563 (TAIF)
MSFC

LAEF *7420 56. 1 10.00 10. 26.4 10.00 10. 26.4 10.00 10.0	# APP # # APP # # APP # # APP	127. CLIMA - 56290 - 47880 - 67290 - 67390 - 67390	3.2590 IN0000 IN0000 IN0000 IN07240 007240 002540 005600 005600 005600	CTNY - 01490 - 01490 - 01490 - 00770 - 00750 - 00750 - 00430 - 00430 - 00635	GRADIENT INTERVAL = CBL	550 550 550 550 550 550 550	CAB	.000 XCPAL .75930 .79570 .63920 .63920 .75690 .73900	FH CP81 (CP81 (CP8	90,000 -1,28500 -1,26720 -1,27600 -1,26030 -1,26030 -1,26930 -1,26930 -1,26930
9720 in9720 in9720 in9720 in9720 in936 is.090 es.99 is.000 es.99 is.000 es.99 is.000 es.99 is.000 es.99 is.000 es.90	\$ 52.50 50 50 50 50 50 50 50 50 50 50 50 50 5	1277 16790 147890 147890 16780 16780	EG 1N. FRAL = CTM1101007240027300273002730052800528005280	* 4 7 10 7 10 7 4 4 10	CBL03590 .03110 .03110 .03110 .0163003100034700006000339		▼ * * * * * * * * * * * * * * * * * * *	XCP.A 72530 . 75520 . 75520 . 61950 . 75900 . 75900 . 75900 . 75900 . 75900 . 91080	681 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .00000	CPC -1, 28350 -1, 26550 -1, 26050 -1, 26050 -1, 26950 -1
4. 9720 IN.	CNM RGM NG CNM	127/ 15296 147680 17680 107680 16780	RNZ = CTH	* 4 7 8 7 8 9 8 8 8	CBL0359003110031000310003100031000330003390339		▼ * * * * * * * * * * * * * * * * * * *	75520 .75520 .75520 .75520 .63920 .77680	CF81 .00000 .00000 .00000 .00000 .00000 .00000	CPC -1, 26300 -1, 26720 -1, 27600 -1, 26030 -1, 26930 -1, 26930 -1, 26930 -1, 26930 -1, 20026
ALPHA ALPHA 1956 1950 1950 1950 1950 1950 1950 1950 1950	CNM 66590 10170 10160 05160 6560 05760 0556	1277 CLIM 56290 .47680 .07680 .07680 .62690 .65790 .65790	RN.L E CYM - 11010 - 07240 - 03540 - 05080 - 05080 - 052860 - 00167	* 4 7 5 7 5 7 5 7 4 4 5 5	CBL035900310003100031000310003100034700347003390339		• • • • • • • • • •	XCP.A75520 .75520 .75520 .619520 .77580 .77580 .73900 .	183) 00000, 00000, 00000, 00000, 00000,	CPC -1, 26350 -1, 26720 -1, 26030 -1, 26030 -1, 26930 -1, 26930 -1, 26930 -1, 26930 -1, 20028
ALPHA 190,060 168,090 193,090 179,770 171,510 189,520 179,790	CN4 66590 18716 .05160 .26700 .75230 .04760 66546	3,1,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,	CTM 11010 07240 027340 02590 05100 05080 05080 05167 05167 05167 05167 05167	* 4 7 5 7 5 7 5 7 4 4 5	CBL .03590 .03590 .03590 .03590 .03590 .03590 .03590		• • • • • • • • • •	XCPA. .72930 .79570 .63920 .61950 .73900	1847 00000 00000 00000 00000 00000 00000	CPC -1.26300 -1.26720 -1.26930
ALPHA 190,060 108,090 193,770 173,650 171,510 169,520 173,790 66,601 GAT	CN4 66590 18790 18700 65700 65700 6546	មិនដែលខ្លួញ ១,	CTH - 11010 - 07240 - 03540 - 05080 - 05080 - 052860 - 00167	** * * * * * * * * * * * * * * * * * * *	CBL .03590 .03110 .01630 .16300070014000230003470033903390339		• • • • • • • • •	XCPA. .72520 .75520 .79570 .83920 .77680 .73900	. 60000 . 00000 . 00000 . 00000 . 00000 . 00000 . 00000	CPC -1,28306 -1,26720 -1,27605 -1,26030 -1,27690 -1,26930 -1,26930 -1,26930 -1,26930 -1,20490
190,000 100,000 110,000 175,650 171,510 189,520 179,790	66590 18716 18716 26700 26700 4760 06546	នៃក្រុងទីស្ទីទី 31	. 07240 . 07240 . 07240 . 02100 . 05100 . 05300 . 05300 . 00167	4 - 6 - 6 6 6 6 6 6	.03590 .03110 .01630 00070 02300 03470 00060 .00339			7887. 7887. 7887. 6187. 6186. 77680 77680 77680	00000	-1,26500 -1,26720 -1,2600 -1,26010 -1,26110 -1,26900 -1,25900
189,090 179,770 171,510 189,520 179,790 64,620,647	. 18716 . 18716 . 18716 . 18716 . 18726 . 1872	ខំនាំ ខំនាំ នៃខ្នុំ នៃ	. 07240 . 03540 . 02730 . 03100 . 05080 . 02880 . 00167	F8 F8 8 4 4 5	.03110 .01630 00070 01400 03470 0339 0339 .03480			. 43920 . 63920 . 61950 . 61950 . 77680 . 77680	00000	-1,26720 -1,276030 -1,26130 -1,276910 -1,256930 -1,256930
179.770 179.770 171.510 169.520 179.790 64.61.647	. 18710 . 26700 . 26700 . 26700 . 26700 . 26700 . 26700 . 26700	ស្នេស្សស្នេក 3		N F N N 4 4 Q	.01630 00070 01400 02300 03470 00339 .00339 .03480			. 79570 . 63920 . 81950 . 77680 . 79900	00000° 00000° 00000° 00000° 00000°	-1,27605 -1,26050 -1,26110 -1,27690 -1,25930
179, 770 175, 650 171, 510 169, 520 179, 790 GRADIENT		ខែមន្តិសិច្ចថ្ម 🕽 🖰	02790 03100 05080 05730 02880 00167	F 50 W 4 4 G	-,00070 -,01400 -,02300 -,03470 -,00060 ,03339 ,03490			63920 .81950 .77560 .91080	00000°	-1,26030 -1,26110 -1,27690 -1,26930 -1,23490
3	. 56546 - 56546 - 56546 - 56546 - 66546	දුන්න්දෙය වී.		8 8 4 4 5	01400 03300 03470 0060 0339 03480			. 81950 . 77680 . 73900	00000° 00000° 00000°	-1,26110 -1,27890 -1,25930 -1,23490
3	. 26700 . 36520 . 73230 - 76546 RUN KC	9, 9, 6, 0, Q	03100 05060 05060 00167 RNA. #	. N 4 4 0	01400 02300 00060 .00339 NENT INTER			77680	00000	-1,27890 -1,26930 -1,23490
3	. 56526 . 04750 . 04760 . 06546 RUN MC	A 2 2 2	05660 05730 00167 00167	2 4 4 2	02300 03470 00060 .00339 .00339			77689	00000	-1.27890 -1.2549000028
3		e e e e	-,06730 -,02880 -,00167 RNAL #	4 4 0	-, 03470 -, 00060 . 00339 SIENT INTER CBL			.91080	00000.	-1,25490
3	06760 06346 RUN MC	(a, a, b)	02880 00167 RNA =	4 0	-,00060 .00339 .00310 .03490		• •	.91080	00000.	-1.23490
J		्र है।	00167 RN/L =	ă	.00339 SENT INTER CBL .03490		•		00000	00026
		3:	RNY "		SIENT INTER CBL .03490			66000		
	¥	CLM	7		CBL .03490	CA -1,24550				
470 14				C	03490	-1.24550	CAB	XPA	CPO	ጸ
			Cotton	34.0	2	-	00000	69730	00000	-1,24550
169.940	2000	06016.	00000	2000	24040	1 24010	מטטטט	716.80	00000	-1.24910
3,479 167,990	-,41720	.32260	04870.	0067	ים משנים	3466377	3 6 6			
163,910	17740	17340	06210	.04520	.01610	-1.25420	. 00000	D6267.	anno.	1.25464
179.620	.00220	04760	05000	.04690	.01100	-1.24810	. 05000	4.29660	00000	-1.24810
	.22360	24020	06110	03690	-, 00330	-1.25110	00000	.76910	00000	
	68839	38760	06690	.03210	-,01060	-1.24180	, 00000	2000	. 00000	
	00000	44740	01810	03970	02430	-1,23770	00000	,70720	00000	-1.23770
	0.000	00100	0.05.40	04040	04000	-1.25070	00000	0.65930	00000	
GRACIENT	05561	.04227	-,00566	-,00020	.00278	-,00041	00000	00081	00000	
	RUN NO.	0. 46/ 0	RIV.	5.07 GRAE	DIENT INTER	5.07 GRADIENT INTERVAL = -5.00/	90.8 /0			
At DHA	40	¥	Č	CYN	ಕ	5	CAB	KFA	CPB1	
•	44400	35160	-,09620	.02930	.03610	-1.19750	00000.	.72010	. 00000	
	20000	27700	G8520	54600	12780	-1,20550	,05550	.71610	00000	-1,20550
	10000	08480	07520	.04860	02900	-1.21300	00000	.82460	. 00000	
200	02440	07670	07010	04320	06000	-1.21460	00000	.92043	00000	
	2000	02820	07100	04500	01640	-1.21470	00000	.77680	00000	-1.21470
	207.0	35830	06249	. 05450	01710	-1,25860	.00000	.73910	00000	-1.20660
	10404	- 41160	62360	C6590	51800	-1,20130	00000	.72350	00000	
	0000	07040	04440	14270	0.860	-1.21480	.00000	. 88485	,00000	
4.960 179.620	06820.	30000						8000	00000	
CHADIENT	-,04724	2020	-, 000086	- 00116	22000	02000	00000	*****		

				H.F.	: 563 (TA1F)	524 IN. 01	NEFC 583 (TAIF) 524 IN. DIA. ET (418 MOD) WIGRIT	WGRIT		(R9	(R99025)	1 60)	4 20 MAR 74 3
	ACTERENCE DATA	CE DATA								PARAMET	PARAMETRIC DATA	~	•
5	.7420 34.	Z	N EGE	2.2	3.2590 JM.								
LACF &	0			0	0000 IN				≤	non.	D D	•	135.000
BACF #	.9720 IN.		ZHRP E		.0000 fw.								
אניונ ג	. 603												
		æ	RUN NO.	12/ 0	RIV. =	3. e	GRADIEM INTERVAL =		-5.00/ 5.00				
HYCH		3	ರೆ	3	Š	200	ē	3	85	5		9	į
4.960		56150	Ĭ	81640	04660	.05570	01110	46480	02250		_	ייייייייייייייייייייייייייייייייייייייי	7
4.960	-7.890	-,45770	-	66480	04630	.04420	.00420	.46140	.02240			00000	COOP .
4.960	-3.630	19640	i	33990	04480	.05340	. 60470	.45270	.02100			00000	2000
4.960	.250	.03760		03330	02710	. C394C	02640	.46230	.02060			00000	20104
4.960	4.260	.26660		.32190	-,03120	05660	06080	47760	02150			00000	
4.960	8,260	.57530		.62850	-, 52930	.07190	01630	49420	02300				30000
4.960	10.200	.71250		.75120	-, 02870	.06650	02470	50250	02420			2000	24710
4.960	.205	.05130	·	03710	03210	08980	01280	46020	0210			00000	47870
	GRADIENT	.05971		.06161	.00168	0000	00440	00308	.00007			00000	43620
												2000	oneon.
				XS.	583 (TA1F)	384 IN. DIV	MSFC 583 (TAIF) 324 IN. DIA. ET (418 MCD) WORIT) WGRIT		R\$9	R99026)	(20 MAR 74	. 27 AN
	REFERENCE DATA	E DATA								Tario Jim Jingto	7.076		
										NI SHAPEL	2 2		
END.		50. IN X	APPRO E	3.23	3.2590 IN.				BERA	000	3		484
ראם .	.9720 IN.		MARP E	Ö.	.0000 IN.							•	200
SREF *	.9720 IN.	Ā	a days	8	.0000 IN.								
SCALE #	.080												
		5	S S	11/0	#N/L	5.09 GRA	GRADIENT INTERVAL =	M. = -5.00,	90. \$.00				
101	ALPHA	3	30	¥	CYH	¥.	ê	5	645	Š		į	į
4.960	10.500	.72560	K	73470	02260	06440.	-, 03560	51920	09440			1000	¥ .
4.960	18,400	.86420	6.	90910	01590	.09740	04800	52910	02.50			00000	04084
4.960	16.460	1.26100	•	1.12470	-,02410	.12750	04900	.56290	02450			0000	00000
4,960	20,510	1.69610	-	31690	-,03180	16330	05150	00865	.02450			90000	200
4.960	24.590	2.21700	1.48	1.48650	04960	.22110	08640	62930	.02390			00000	
4.960	26.610	2.74810	1.6	1.65750	04080	.22080	-, 10990	65930	.02315			00000	00000
4.950	30.570	3,08010	2.3	1.73020	03850	. 22150	10990	.67470	.02270			00000	01000
1.060	20.510	1.69820	. 3	1.51710	03200	.15700	06360	. 59720	.02420			00000	00246
	CRADIENT	.11716	ş	. 04792	00127	. 50770	00387	. 50769	-, 60003			00000	.00794

(R99027) (20 MAR 74)

HSFC 563 (TAIF) 524 IN. DIA. ET (418 HOD) WIGHT

## 19720 IN. THRP E	-5.00/ -5.00/ 100 100 100 100 100 100 100 100 100	5, 60 5, 60 6,	CP81 .00000 .00000 .00000 .00000 .00000 .00000 .00000	55.000 CPC .72090 .69260 .6370 .58720 .47450 .64860
# .9720 IN. PREP E0030 RUN NO.	-5.00/ 1400 1900 170 170	**********	CP81 . 00000 . 00000 . 00000 . 00000 . 00000 . 00000 . 00000 . 00000	CPC .72400 .72050 .69260 .64370 .58250 .47400 .64860
ALPHA CN# CLM 50.360 5.99350 2.74; 50.360 5.99350 2.74; 56.320 5.99350 2.97; 66.320 5.99350 2.97; 66.320 5.99350 2.97; 66.320 7.85730 3.39; 70.260 7.85730 3.39; 60.340 6.90940 3.29; 60.340 6.90940 3.29; 60.340 6.3400 3.29; 60.440 6.37770 2.457; 90.440 6.37770 2.457; 90.440 6.34770 2.135;	-5.00/ 400 170 170 170 180 180	2222222	0	CPC . 72400 . 69260 . 64370 . 58720 . 47400 . 64860
## ALPHA CNM CLM 60 50,380 5,99350 E,743 60 50,380 5,99350 E,743 60 50,380 6,96370 2,97 60 66,370 7,85730 3,397 60 66,370 7,85730 3,397 60 66,370 7,85730 3,397 60 66,370 7,85730 3,297 60 66,370 6,96340 3,293 60 66,370 7,85730 3,284 60 60,340 6,32730 3,284 60 66,430 6,32730 3,284 60 66,430 6,34770 2,45770 3,397 60 90,430 6,44370 1,971	-5.00/ -5.00/ 170 170 170 180 180	2000000	0	CPC . 72 050 . 692 60 . 643 70 . 587 20 . 587 20 . 474 60 . 648 60
ALPNA CNP CLN S0.360 5.39350 2.743 56.350 5.39350 2.974 56.350 5.39350 2.974 56.350 5.350	-5.00.4- 100.0000 100.0000 100.000 100	2222222	0	CPC .72400 .72400 .69260 .64370 .92230 .47400 .64660
ALPMA Chee CLN 50.380 5.99350 2.74 56.320 6.42090 2.977 60.360 6.96870 3.124 66.370 7.853420 3.381 66.370 7.853420 3.381 66.370 7.853420 3.381 66.370 7.853420 3.381 66.370 7.853420 3.2826 GRADIEMT .11291 .037 GRADIEM CATA .7420 54. IN YARR #9720 IN YARR #9720 IN YARR #9720 IN YARR #9720 IN XARR #	. 72400 . 72400 . 69280 . 64370 . 58720	88888888	0	CPC .72400 .72090 .64270 .58720 .47400 .64660 .64660
50.360 5.99350 2.974 56.220 5.63150 2.647 56.320 6.42090 2.974 56.320 6.42090 2.974 66.340 7.81590 3.350 60.340 6.90340 3.202 64.400 7.81590 3.202 64.400 6.4440 6.57770 3.2647 96.430 6.4440 6.57770 3.2647 96.440 6.57770 2.4577	. 72400 . 72090 . 64370 . 54370	88888888		
56.220 5.85150 2.974 56.320 6.42090 2.974 66.370 7.65420 5.351 66.370 7.65420 5.351 66.370 7.65420 5.351 66.370 7.65420 5.351 66.370 7.65420 5.351 66.370 6.95940 5.202 66.340 6.95940 5.203 66.430 6.3770 5.264 66.430 6.34210 5.264 96.410 6.34210 5.1329 100.300 6.44370 5.973	. 6920 . 6930 . 64370 . 58720		• • • • • • • •	
56.320 6.42090 2.978 60.360 6.96870 3.124 64.400 7.31590 3.311 66.370 7.65420 3.367 70.260 7.65730 3.202 60.340 6.95940 3.203 60.340 6.32730 3.264 66.430 6.3460 3.2140 66.430 6.3460 3.2140 66.430 6.3460 6.3154 96.410 6.34770 3.284 96.410 6.34210 5.132	. 69280 . 64370 . 58720		• • • • • • •	. 64860 . 64860 . 64860 . 64860 . 64860 . 64860
60.360 6.96870 5.312 64.400 7.31590 5.351 66.370 7.65420 5.396 76.280 7.65730 5.396 60.340 6.95940 3.203 GADIEMT .11291 .037 REFRENCE CATA .7420 54. IN MARR E. .9720 IN. PARR E	. 564370 05635 03635	• • • • • • • • • • • • • • • • • • • •	• • • • • • •	. 6436 . 58720 . 58720 . 64860 . 01252
66.370 7.81590 3.331 66.370 7.65420 3.396 70.280 7.85730 3.2930 60.340 6.90940 3.292 64.40 6.37770 2.4459 90.410 6.5440 6.34770 2.4575 90.430 6.54810 6.4450 6.5152	. \$8720	• • • • • •		. 54740 . 58720 . 52250 . 47400 . 64860 . 01252
66.370 7.65420 5.396 75.265 7.85730 5.503 60.340 6.95940 5.202 60.340 6.95940 5.203 80.340 6.3770 5.284 90.430 9.5420 5.132 90.430 9.5420 5.132 90.430 9.5420 5.132	52260		• • • • •	. 58720 . 52250 . 47400 . 64860 - 01252
FG-260 7.65730 3.503 60.340 6.9540 3.203 GAGIEM .11291 .037 REFERENCE CATA .7420 54. IN MARR E9720 IN. 2049 E0530 ALPHA CAM CLIM 60.37900 3.214 66.430 6.37730 3.284; 96.430 6.34770 2.457; 96.410 6.54770 2.457; 96.410 6.54770 2.155;			• • • •	.47400
60.340 6.95940 3.202 60.340 6.95940 3.202 60.340 6.32730 3.284 60.340 6.32730 3.284 60.340 6.32730 3.284 60.430 6.34460 2.445 90.430 6.44460 2.132 100.300 6.44370 1.971	2010		• • •	.47400 .64860 01252
RETREME CATA -7420 54. IN MARK E. -9720 IN. PARK E. -9720 IN. PARK E. -9720 IN. PARK E. -0530 RUM NO. 6 -8240 -82	47400		• •	01252
REFERENCE CATA .7420 54. IN MARR E9720 IN. 11291 .037 .9720 IN. 1769 E0530 RUN NO. 6 .440 6.3770 3.284 96.430 6.3480 2.914 96.410 6.3470 2.457 96.410 6.3470 2.135	.64860	•	•	01252
REFERENCE CATA .7420 54. IN MARK E9720 IN. THER E0530 RUN NO. 6 .9720 3.284 60.340 6.3770 3.284 66.430 6.3770 2.447 94.440 6.37770 2.4571 96.410 6.34770 2.4571	01252	R99028		2
REFERENCE CATA .7420 50. IN NORM E 3.2590 IN9720 IN.	HOD) WGRIT			
- 7420 59. IN NORTH E 3,2590 IN 9720 IN 9720 IN 9720 IN 9720 IN 6030 RUM NO. 667 0 RN/L = 4,94 4,744 CNH - 60,440 B,52730 3,24470 2,2950 1,63 90,440 8,5770 2,45750 3,7607 1,63 94,440 8,5770 2,45750 3,7607 1,63 94,440 8,54210 2,45750 3,7607 -,010 94,440 8,54210 2,45750 3,7607 -,010		PARAMETRIC DATA	DATA	
- 9720 [N. TREP = .0000 [N0030				
9720 IN. 2569 E0000 IN0530 ALPHA CHM CLHM CYN CYN CYNM 60.240 8.32730 3.24420 .26330 6.430 66.430 8.5920 3.04050 3.2440 6.5770 2.44570 3.5450 .0479 94.440 8.57770 2.45750 3.766005030 06.440 8.54770 2.45750 3.76600221 100.300 8.44370 8.97140 3.92200622	DETA	000.	ı.	135, 000
ALPHA CNM CLIM CTHM CYM CYM CYMM 60.440 8.32730 3.26420 26530 .2033 65.440 8.59300 3.24470 2.45950 .1633 90.440 8.51770 2.45750 3.7660010300 8.54470 8.54570 3.95200221 100.300 8.44370 8.59740 3.92200221				
ALPHA CNM CLIMM CYM CYM CYM CYM CYM CYM CYM CYM CYM C				
ALPHA CNM CLIMM CYM CYN4 CYN4 CYN4 CYN4 60,340 6,3270 3,28420 ,26550 ,17690 62,440 6,37900 3,21470 ,29650 ,17690 90,430 6,5420 2,45750 2,45750 ,36790 ,04700 96,410 6,54770 2,45750 3,862002200 100,300 6,44370 1,97140 3,822006200	-5.00/	5,00		
8,32730 3,28420 ,28530 ,20320 6,37900 3,29470 ,29550 ,17690 9,59520 3,64050 3,5900 ,16350 9,54480 2,45750 3,5690 -,02200 8,44370 1,97400 3,38250 -,08220	* 5	8	į	į
62.440 6.37900 3.21470 ,29550 ,17690 66.430 8.59920 3.04050 ,31900 ,16530 90.430 0.54480 2.41420 ,3679004700 94.440 0.57770 2.45750 ,3786001010 96.410 8.54210 2.13230 ,3822006220 100.300 6.44370 1.97140 ,3822006620	28820	2	1945	Y
66.430 8.59920 3.04030 31900 16550 90.430 9.54460 2.81420 3.86790 .04700 94.440 8.57770 2.45750 3796001010 98.410 8.54210 2.13230 3.999002200 100.300 8.44370 1.97440 3.962006220	04010		00000	. 26620
90.430	0,440		00000	.21260
94.440 8.57770 2.45750 .3786001010 98.410 8.54210 2.13230 .3898002200 100.300 8.44370 1.97140 .3862008220	2000		00000.	.01670
98.410 8.54210 2.13230 .36980 02200 100.300 8.44370 1.97140 .38220 06220	000000		00000	-, 19400
100,300 8.44370 1.97140 ,38220,08620	2000		00000	39410
	2000	•	00000	52450
95.430 6.52840 2.77820 .36770 .04470	0.00440		00000	61440
20000 20000 20000 20000	00061	06626. 05000.	00000	19060

##CF 18 14. DIA, ET (418 MOD) W/Gall 1. Gall 1. See 1. Color 18. C	CATE OS AUG 74	ALE 72		-	TABLEATED BOLRCE DATA, MSFC THE SES	CE DATA, NS	FC TAT 583				•	PAGE 83
######################################					HSFC 965 (TAIF	"1 324 IN. D	1A. ET (418)	OD WGALT		(499026)		(20 MAR 74)
F = .7470 54. H 3969 E 3,2390 IN. F = .9720 IN.		SPTO.	DACE DATA							PARANETRIC DATA	DATA	
### ALPHA COM		. 0748 . 0770 . 0770 . 0030	Z		3.8390 IN. .0000 IH. .0000 IN.					900.	m .	138,000
#### #################################			2			4.8	ADIENT INTE		10, 8.00			
1.940 127.740 3.27760 .17710 .08190161402091076650 .00000 1.940 127.740 3.27760 .26660 .13570139102091076650 .00000 1.940 1127.740 3.27760 .26650 .13570139102094077410 .00000 1.940 111.640 5.79310 .30470 .13090131003122039430 .00000 1.940 111.640 7.21390 .96630 .13520131003150031500 0.00000 1.940 110.640 7.21390 .130400 .13520131003122039430 .000000 1.940 110.640 7.21390 .33420 .1352020730276302763051310 0.000000 1.940 110.640 6.36930 .33420 .13220276302763027630 1.9560 109.730 7.43160 1.0340020330207302763027630 0.0000000000000000000000000000000000	MOW	A PRA	3	T C		CAR	é	3	5	5	•	3
**************************************	7	129.640	4.99250	.17			20910	-,76650	. 00000	57630	00000	2
### 19-600 6-26-01	204.	127.740	5.27760	. 26a		11910	23040	-,72400	00000	. 57360	00000	79400
**************************************		163.700	01664.6	700		13750	25820	61970	. 00000	.57180	.00000	61970
**************************************	940	000.614	0.69610	ing.		15830	28040	51500	00000	.56840	00000	51500
**************************************	200	0.0.0	0.6000	.673		13400	-,31220	39430	00000	.56530	00000	18968
### ALPHA CMM CAMP CONTROL 13550099103398020710 .00000 .39000 .3900020730207302073020730 .00000 .00000 .39000003302073020730207310 .00000 .00000 .00000 .207302073020730207310 .00000 .00000 .00000 .207302073020730207310 .00000 .00000 .00000 .0000000000 IN. E7420 84. IN. DIA. E7410 E741	200	000	7.61590	280		12100	33160	-,26770	00000	. 56130	00000	26770
### CRACIENT1220304090207302763051510 .00000 ##############################	200	109.730	7,45160	33.		09910	33980	20710	00000	.55830	00000	90350
### CTERRICE DATA ## .7420 84. IN 1949 E 3.2390 IN. ## .9720 IN. 1948 C		119.000	6.30900	. 330		20730	-,27630	-,51510	.00000	56790	00000	2000
RETERBACE DATA ** .7420 84. IN 19678 E0000 IN. ** .9720 IN. THEP E0000 IN. THEP E0000 IN. ** .9720 IN. THEP E0000 IN. THEP E0000 IN. ** .9720 IN. THEP E0000 IN. THEP E0000 IN. ** .9720 IN. THEP E0000 IN. THEP E0000 IN. ** .9720 IN. THEP E0000 IN. THEP E0000 IN. ** .9720 IN. THEP E0000 IN. THEP E0000 IN. ** .9720 IN. THEP E0000 IN. THEP E0000 IN. ** .9720 IN. THEP E0000 IN. THEP E0000 IN. ** .9720 IN. THEP E0000 IN. THEP E0000 IN. ** .9720 IN. THEP E0000 IN. THEP E0000 IN. ** .9720 IN. THEP E0000 IN. THEP E0000 IN. ** .9720 IN. THEP E0000 IN. THEP E0000 IN. ** .9720 IN. THEP E0000 IN. TH		SACION	12203	0		00172	. CC648	02817	00000	00084		03010-
REPERBACE DATA ** .7420 64. IN 19678 E 3.2590 IN. ** .9720 IN. THEP E0000 IN. ** .9720 IN. THEP E THEP E ** .0000 IN. THEP E THEP E ** .0000 IN. THEP E ** .00000 IN. THEP E ** .0000 IN. THEP E ** .00000											2000	- 0011
# .7420 84. IN MAPP E 3.2590 IN. * .9720 IN. THEP E 3.2590 IN. * .9720 IN. THEP E0000 IN. * .0000 E THEP E0000 IN. * .0000 IN. THEP E0000 IN.				-	SFC 583 (TAIF)	324 IN. 01/	i. ET (418 MC	D) WGRIT		R99030)) (20 MAR 74	AR 74)
# .7420 84. IN WARP E0000 IN. # .9720 IN.		RETEREN	CE DATA						ã.	PARALETRIC DATA	DATA	
# .9720 IN. THEP E 10000 IN. # .9720 IN. ZHEP E 10000 IN. # .9720 IN. # .9720 IN. # .9720 IN. # .00000 IN. # .9720 IN. # .00000 IN. # .00000 IN. # .9720 IN. # .00000 IN. # .9720 IN. # .00000 IN. # .	942F a	ARD SA	2		4 9400 120							
E0030 RUN NO. 43/ 0 RN/L E 5.14 GRADIENT INTERVAL = -5.00/ 5.00 CH ALPHA CAM CAM CYM CYM CYM CRW CBL CA CAB 960 147.350 2.61571006910081901039010390 -1.0626000000 960 147.350 2.955600691007800139901039010856000000 960 139.200 3.95260 .0520003250139901239000000 960 139.200 3.95260 .0520003250139901695000000 960 139.200 3.95260 .05200 .03260139602173021460 .00000 960 139.200 5.02030 .22350 .00200125602173021460 .00000 960 139.200 3.96430 .0060002000125602173021450 .00000 960 139.200 3.96430 .0060002000125602175021910 .00000 66001501376012760127601296091930 .00000 66001501376013760137601396091930 .00000	יים יי	W) 0246.			. G000 1N					000	E .	135,000
RUN ND, 43/0 RNVL = 5.14 GRADIENT INTERVAL = -5.00/ 5.00 H ALPHA CNM CLNM CYM CNW CDL CA FEG 149.290 2.5171006910061901017008020 -1.06250 .00000 FEG 147.390 2.6035006400076001399010390 -1.06251 .00000 FEG 143.270 3.53960 .0006006900139901250099510 .00000 FEG 159.200 3.53560 .032000325013590159510 .00000 FEG 159.140 4.47650 .13250 .032601356015550217074570 .00000 FEG 159.200 5.26090 .25430 .1021012540247070390 .00000 FEG 159.200 3.56430 .0168002060137601598091830 .00000 FEG 159.200 3.56430 .0168002067 .00142 .0017901916 .00000	SACT .	MI 0246.			.0000 IN.							
ALPHA CAM CLAM CTAM CTAM CADIENT INTERVAL = -5.00/ 5.00 ALPHA CAM CLAM CTAM CTAM CADE	3	200.										
ALPMA CNM CLIMM CYM CYM CTNM CBL CA CAB 149.290 2.108360 .00000 .00000 147.350 2.8035006490074001017006920 -1.08360 .00000 .00000 143.270 5.35960 .0000005940139901236099510 .00000 .05290 3.55260 .05200139901359099510 .00000 .055.00 3.55260 .05260131801555091900 .00000 .055.00 5.02500 .03260131801555091900 .00000 .00000 .135.00 5.25090 .25430 .0010012540247074390 .000000			\$				DIENT INTER		00.8 /			
149,290 2,51710 -,06910 -,06190 -,10170 -,0020 -,108360 ,00000 , 147,350 2,60350 -,06400 -,07800 -,09760 -,10390 -,106250 ,00000 , 143,270 5,35960 ,00060 -,06900 -,13990 -,12360 -,99510 ,00000 , 139,200 3,95200 ,05200 -,03250 -,1340 -,15950 -,91900 ,00000 , 135,140 4,47650 ,13250 ,03260 -,13180 -,18650 -,83460 ,00000 , 131,090 5,02050 ,25350 ,00110 -,18650 -,2170 -,74570 ,00000 , 129,800 5,02090 ,25430 ,10210 -,12540 -,24750 -,70390 ,00000 , 139,200 3,96430 ,01690 -,02080 -,13760 -,15980 -,91830 ,00000 ,	MCH	AL PHA	Ş	9	CYN	CYNE	ē	3				
147.350	4.960	149.290	2.51710	-,0691	·	10170	Clans	1.000.00	2000	74.7	5	ş
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	(18 MOD)
	DIA. ET (418 MOD)
	7.4 IN.
MERC SARATION	
Merc	

PAGE 28

SALE .											State to de way by		
LATT # BACT # WALE #	7420	3	2	5							PARAMETRIC DATA	DATA	
נערב א נערב א	.9720	ž		YMER X	n	3.2590 IN.				BETA			
נאנב א	.9720		2000			NI DODD					•		285, 900
	0630.		i		•								
			5	RUN NO.	138/ 0	RNA. "	6.94	GRADIENT INTERVAL :		-5.00. 5.00			
HOME	AL PHA		3	Č	3								
1.962	10,600		8709B	۽ ر	[3		ਵੱ	3	873	,		
1.962		-			יאכנלה	.01690			.76523		XPA.	9	ዷ
1.962		-	2000	7	02000	.02160	09800.	000000	77680	3	10000	. 00000	.66140
1.962	21.420	• 6	2000	P7 .	1,34950	.02510	006720		79970	01011	.41670	00000	.66630
36	200	¥ .	333051	7.1	1.71420	.02350	0 01590		2000	09221	.44740	00000.	067690
0.00	20.00	·	0.0000	N.	2.06070	.00170	002200		20000	13000	.43640	. 00000	0.68540
	010.69		9.64260	2	2.34660	01440			02020	.13370	.46340	00000	49140
200	31.630		3.95790	2.4	2.48350	-, 03470			08609.	.12980	.47050	00000	00000
×	21.22		2,34250	1.68	1.68040	01490			.80870	13040	47350	00000	2000
	SACIENT		.14758	0	.07546	00236		.01330	. 60000	.12850	.45780	יייייייייייייייייייייייייייייייייייייי	.67820
							00168	\$6000.	.00211	. 06123	.00327	00000	.00088
			SCN NO.		15/ 0	RN-L	6.32	GRADIENT INTERVAL	W. = -5.00.	טט א טט			
# CH	A PAC	Š	I	2	3								
9.479	10.650		.82870		80330	200		ਵੱ	ť	CAB	Y. CO.	į	
2.47	12,360	•	.02389	934.0	200			00260	. 59300	04930	41410	193	Ä
2.47	16.720	4.	1,44630	1.19980	200	00000		50200	.60620	.05020	423.00	00000	.54370
2.4.0	20,640	6. *	1.91040	1.44750	L'EL	2000		.00000	.63410	.05020	43.840	D0000	. 55590
2.479	25.000	9	2,42910	1.68200	2 6	000000	•	, 06220	66390	04960	CaCA	00000	. 36360
2.47	29.120	0	P. 97647		2 2	יייייייייייייייייייייייייייייייייייייי	09030	00800	69490	COAPC	0000	• 00000	.61420
3.47	31,090		2.25040	4.0004	3 6	. 03330	-,01220	.01520	.72950	04670	10000	. 00000	64609
3.470	20,840	24	1 Appen	10366.	2 1	U3920	01290	06210.	74250	Caro	1000	. 00000	.68270
	GRADIENT	-	11036	10000		01930	06660.	.00610	66390	04040	4 7600	. 00000	. \$9520
		:	3	98/07		-, 05231	-, 50125	. 501.00	. 00737	- 05517	0000	. 00000	.61430
			S NOW		0 / 17						8 AUGO -	00000	. 00754
i					,	אט ר	¥25 10.€	GRADIENT INTERVAL	AL = -5,00/	20.5 /			
MACH	ALPHA	3	_	3		Y.	7	ŧ	,				
300	10,500	2	73920	.75910	9	. Ghaan		ָרָבָּרָ קבריים	ð	CAB	XPX	1995	-
. 960	15.400	6.	02416	. 49800	00	00880	04460		. 51460	, 62340	40410	יניטיטי	¥ :
7.960	16.460	1,27290	290	1.11090		00,00	200	- 40060	.53170	.02360	41240	0000	01164.
4.960	20,510	1.70310	910	1.29140			.01650	~.04820	.56740	.62370	0001	Dann.	. 50610
1.960	24.590	2.22760	194	1.45290	•	00000	06010	.05340	.60450	02390	16191	00000	. 54360
096'7	20.630	2.74640	9	64626		0.000	16350	.00550	.65500	02420	00004	00000	. 58060
000.	30,560	2.97770				. 03370	. 03110	.01640	.70290	02140	0 400 4	00000	.63060
4.960	20,510	1.69610		1000.		-,02740	00640	. 60960	.71930	00000	0.4.4.	, 00000	.67940
	GOADIFAT			1,50170	•	0000	.01520	-,05940	65210	7 7 7 7 7	0609	.00000	.69700
		16311	ī	E 27		00201	55541	. 66227		26.5u.	.45120	. 55.50	57810
									0000	50553	00.400		



DATE 63 AUG 74	AUG 74			TAL	TABLEATED SCIECE DATA	CF DATA	20 m in Jgon					
							Cac 181 303					48 39Vd
				-	HSFC 503 (TAL	MSFC 503 (TAIF) 324 IN. DIA. ET (418 MOD) WERLT	14. ET (418	HOD! WGRIT		(R99035)		(20 HAR 74.)
	AUPER	REPERENCE DATA	4									
BACT .	.7420 80.	20.00	9							PARAMETRIC DATA	DATA	
LACT .	9729 IN.		9		WI DECO.C				BETA #	000	- IMG	
BAG.	. 9720 IN.	ž	000	ø si	NI DODG							100.000
SCALE &	.0530	!			Z TOO							
			2	RUN NO. 101, 0	O RINL #	7.01	GRADIENT INTERVAL		4 VOD 9-			
MAKCH	AL PHA	3							20.0			
1.945	51.190	6.03400	6	A 10 10 10 10 10 10 10 10 10 10 10 10 10		_	_ඒ	5	CAB	A078	9	
1.945	53,090	•	9	3 70400	01420		.05110	.62630	.00000	47680		¥.
1.945	\$7.180		9	3.85030	•		.05150	.61850	.00000	47900	00000	00030
1.945	61.240	•-	9	3.62180	•	•	.06030	.60140	,00000	.48190	00000	2010-
1.945	65.300		02	3.77760	•		.06310	.65500	. 00000	.46810	00000	2000
1.945	69,310		20	3.78460	•	0.03460	.06620	06609.	.00000	.49360	00000	00000
1.945	71.220	7.75410	9	3,72030			.07480	50730	, 60000	049670	.00000	01105
1.945	61.190	6.86150	20	3,67650	•		. 07520	.44110	.00000	.49910	.00000	44110
	GRADIENT	.08761	15	.05234		60349	02120	64990	. 00000	04694.	00000	20079
						*****	*2100 ·	00750	, 60000	.00113	.00000	
		Œ	₹ Ş	63/0	O RNYL =	6.33 GRA	DIENT INTER	GRADIENT INTERVAL = -5.00/	5.00			
HOYM	A FRE	Š		3	3							
5.47	50.730	3.61540		2.78240		F	ಕ್ಷ	ð	CAB	XPX	8	2
2.13	52,660	5.61030		2.80100	0.0000	W260	06880.	.71990	00000	49640	00000	3
3,470	56.710	6.31460		0.070	0301	0.00490	.05720	.72160	.00000	.49600	. 0000	200
3.479	60.730	6.70380		3.22980	01630	05180	06480	.73280	,00000	49770	מטטטט.	200.00
3.479	64.610	7,02560		3.54010	0.4450	07980	07110	.67660	.00000	49880	00000	2000
5.A78	66.620	7.31520		3.49670	00000	01101-	00220	.65110	.00000	49990	00000	300.0
8.470	10.730	7.45160		3.49900		OFFICE OF	02280	. 571 50	00000	48940	00000	71160
2.43	60.750	6.67950		3,22440	03950	Cased -	06580	22110	00000	06006.	.00000	0118
	SEA COLON	.09195	_	.03610	00056	-, 00019	800	. 00944	00000.	.49860	00000	.67980
		. B.	ACK NO.	E4. 0	ARVL =	5.62 GRADIENT INTERNAL :	ENT INTERV	, a	100 F			******
1	A. 0844	3	ľ					10000	5			
4.960	30.370	5.400	Ī	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	CAN.	***	Car	ð	CAB	200	į	
4.960	52.260	3.724.0	• •	27962.	00.60	05670	. 56070	20862.	00000	- Span		8
4.960	56.300	6.21500		7.000	20101	06090	. 06060	.77830	00000	. 50550	00000	.75500
4.960	60.320	6.64020	٨	2.44110	00000	- 06030	.07240	.76540	.00000	.50660	0000	. 77630
4.960	64.360	6.96710		3.14470	0.440	0.000	.07840	.70870	00000	. 90550	00000	10340
4.960	66,350	7.23720		22000	2000-	Desco	. 06430	.65620	.00000	50400	0000	0.000
4.960	70.260	7,38550		3.29180	10870	03400	.08180	. 56630	.00200	. 50370		02059
4.960	60.320	6.61130	~	2.94940		04250	. 09280	. \$2520	. 00000	50500	00000	.56630
_	CRACIENT	69425		0.570	0000	06160	.07780	.71300	.00000	. 50500		02626
		*	•	3	* 1000 *	. 00102	, 56150	-, 51349	, 00000	00018	00000	21300
										•	7777	. 01349

CPC . 6280 . 61850 . 60140 . 65500 . 65500 . 65500 . 644110 . 64690 . 64690 . 64690 . 64690 . 64690 . 64690 . 64690 . 64690 . 66690 . 64600 . 64600 .

MSFC 585 (TAIF) 324 IN. DIA. ET (418 MOD) W/GRIT

### 1.977 14. Tage 3. 11. Tage 2. 12. 1000 14. ***ALPA ***CHA********************************										PARAMETRIC DATA	CATA	
ST20 IN. Deep 2 10000 IN.	•	.7420 5	Z	**	2590 IN							
RUN NO. 102 O SNV. = 6.98 GRADIBNT INTEXNN, = -5.00, 5.00 RUN NO. 102 O SNV. = 6.98 GRADIBNT INTEXNN, = -5.00, 5.00 CAPTA CA	и Б	. \$720 11		н	.0000 IN.					000.		180,000
# 44Ph4 Che				*	. 6000 IN							
## ALPHA CHH ## CLAM #												
# #1,PP4			25			6.9 2	ADIENT INTE					
## 81.560 6.19170 5.17500 .06720 .10340 .07820 .02834 .00000 .151510 .91720 .917300 .07180 .10740 .077820 .108900 .151510 .91720 .917300 .071800 .108700 .17890 .00000 .151510 .91720 .91720 .07820 .07820 .00000 .91730 .91720 .91720 .91870 .00000 .91730 .91720 .91720 .91870 .00000 .91730 .91720 .91870 .91870 .91870 .91720 .91870 .9	¥C¥		3	3	Š	3	ŧ					
## 81.250 6.49710 2.79270 .00000 .110560 .00020 .13550 .00000 .35750 .95.20 6.49710 2.79270 .00000 .10050 .00000 .25750 .95.20 6.49710 2.79270 .00000 .10050 .00000 .25750 .95.20 6.49710 2.79270 .00000 .10050 .95770 .95.20 6.49710 2.79270 .00000 .10050 .95770 .95.20 6.49710 2.79270 .00000 .95770 .95720 .00000 .25720 .95720 .95720 .00000 .25720 .95720 .95720 .00000 .94720 .95720 .00000 .94720 .95720 .95720 .00000 .94720 .957200 .90000 .97720	1.951		8.19170	A 17400	06730		9	5	GA GA	ス と ス	CP81	8
## 87.250	1.957		6.37040		03.00	1W30	.07620	-, 02350	00000	.51510	.00000	02540
9 91.12	1.957		B 40710	0.515.0	09170.	-10740	.07850	-, 13690	.00000	51780	00000	
### CAMPIENT CONTROL 19920	9.5			C. 1927U	. 58000	10569	.08270	29940	00000	8284F	00000	1000
7. 101.020 6.36270 1.77650 .09770092400924052220 .00000 .3472099.41			0.2000	2.39430	.09120	09880	.07850	41820	00000		20000	28940
## 101.020			9.33000	2.03720	09730	07920	.08240	42.20		0.000	noon.	41820
### 101.020	. 23		8.46690	1.71660	09940	06240	חשפרון	2000	00000	01150	00000	-, 52320
## STATE	. 957		6.36270	1.57030	09730	חפרופרו –		06500	00000	.54720	.00000	63090
######################################	.957		6,55465	2.39500	00.00	2000	UPBAN.	68050	000000	.54980	.00000	68000
### CNH NO. 82/ 0 RNL = 6.33 GRADIBNT INTERVAL = -5.00, 5.00 ##################################		CANDIENT	. 55760	08411	Date.	7,09040	.08440	41610	.00000	.53350	00000	-41610
### NO. 62/ 0 RIVL = 6.33 GRADIENT INTERVAL = -5.00/ 5.00 ##################################				*****	90100	.00253	01000	-, 03210	00000	.00181	.00000	-,63210
## Chair Chair Class			5				DIENT INTER	WL = -5.00				
## CAN TARGET 3,28030 -,08170 -,05900 .10810 .28930 .00000 .31100	Į į		3	3	CYN	CYN	é	ð	840	3	į	
85.610 7.89350 3.213600621009680 .11550 .28408 .00000 .31170 .00000 .31170 .00000 .1155024080 .00000 .31170 .00000 .31170 .00000 .1155024080 .00000 .31170 .32500 .00000 .31170 .00000 .1155024080 .00000 .32530 .00000 .32530 .00000 .1155024080 .00000 .32530 .00000 .32530 .00000 .1155042760 .00000 .32530 .00000 .32530 .00000 .17161005500 .00500 .1155042760 .00000 .32530 .00000 .17161005500 .00030 .1155042760 .00000 .32530 .00000 .32530 .00000 .17161005500 .00050 .1125000000 .00000 .32530 .00000 .00000 .00000 .32530 .00000 .00000 .00000 .32530 .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000 .32600 .00000 .00000 .00000 .31600 .00000 .00000 .31600 .00000 .00000 .32100 .00000 .00000 .00000 .00000 .00000 .32100 .000000	47.		7.66610	3,26030	08170	05990	- t Gato	90000		NA LA	192	ž
86.640 7.97450 3.076600445012790 .11540 .00400 .55170 .55170 .00400 .55170 .55170 .00400 .55170 .55170 .00400 .55170 .55170 .55170 .00400 .55150 .55170 .55170 .55170 .55170 .00400 .5517	¥.	62.630	7,89350	3.21360	06210	DAGAD	2000	00000	2000	21000	00000	.24950
90.020 7.96100 2.7105005260 .1155024060 .00000 .51560 .3250 .00000 .25350 .00000 .25350 .00000 .33350 .00000 .33350 .00000 .1155024060 .00000 .33350 .3350 .00000 .1155024060 .00000 .33350 .3350 .00000 .1155024060 .00000 .33350 .3350 .00000 .1155025700 .00000 .33350 .3420 .00000 .1250 .1250 .00000 .34420 .34420 .00000 .1250 .00000 .00000 .34420 .00000 .1250 .00000 .00000 .34420 .00000 .1250 .00000 .00000 .34420 .00000 .00000 .00000 .35250 .00000 .00000 .00000 .00000 .35250 .00000 .00000 .00000 .00000 .35250 .00000 .00000 .35250 .00000 .00000 .35250 .00000 .00000 .35250 .00000 .00000 .35250 .00000 .35250 .00000 .00000 .35250 .00000 .35250 .00000 .2770 .00000 .35250 .00000 .35250 .00000 .35250 .00000 .35250 .00000 .35250 .00000 .35250 .00000 .35250 .00000 .35250 .00000 .35250 .00000 .35250 .00000 .35250 .00000 .00000 .35250 .00000 .00000 .35250 .00000 .00000 .00000 .35250 .00000 .00000 .00000 .00000 .35250 .00000 .00000 .00000 .00000 .35250 .00000 .00000 .00000 .00000 .00000 .00000 .35250 .00000 .00000 .00000 .00000 .00000 .00000 .00000 .35250 .000000	ţ	86.640	7.97450	3.07060	04430	12790	30624	75175	00000	. 51170	00000	.21140
94.810 7.96310 2.266300766000880 .1115042760 .00000 .33300 .36430 1.0640 1.06569 .03970 .111505740 .00000 .33300 .34300 .03970 .111505740 .00000 .33300 .34300 .00060 7.69510 2.725900461005300 .11020 .12020 .22620 .34420 .266510 2.7259004610 .10000 .11020 .22620	£.	90,620	7.98150	2.71050	05280	. Na7an		0.000	00000	. 51560	00000	.00440
98.760 7.66010 1.66360 .00550 .005370 .1115042760 .00500 .39300 .99.060 7.65330 1.7161005590 .05330 .1136057640 .00500 .3430 .3420 .0056605326 .00552 .10750 .1136054470 .00500 .3420 .3420 .3420 .1135054470 .00500 .3420 .3420 .3420 .1135006470 .00500 .3420 .3420 .3420 .1135006470 .00500 .3520 .3420 .3420 .1135006470 .00500 .00182 .3520 .3420 .3420 .005540 .00550 .00550 .11250 .3465 .00500 .00182 .3420 .005182 .3420	2	94.610	7.96310	2.25630	0200	00000	Deer .	2.24080	00000	.52350	.00000	24080
### CNM NO. 81/ 005670 .05030 .1046057040 .00500 .54130 .00620 7.69510 E.7259005650 .10550 .10550 .10550 .00500 .52420 .52500 .0056605326 .00552 .007500050604665 .00500 .00182 .007500050604665 .00500 .00182 .007500050604665 .00500 .00182 .00500 .00500 .00182 .00500 .00500 .00500 .00182 .00500 .00500 .00500 .00182 .00500	2	98.760	7.86010	1 46167	2000	19900-	111150	42780	.00000	. 53500	.00000	427AD
90.820 7.89610 8.7259046101020102024420252592525900568	479	100.640	7.86330	1 21610	0.000	07650.	.11360	57040	. 00000	.54130	.00000	47040
### CAMPIENT0026600326 .00052 .00750 .11020 .20465 .00000 .00182 .007500050604665 .00000 .00182 .007500050604665 .00000 .00182 .007500050604665 .00000 .00182 .00510 .00182 .00510 .00182 .00510 .00182 .00510 .00182 .00510 .00182 .00510 .00182 .00510 .00182 .00510 .00500 .51250 .00180 .0	2	90.820	7 40610	00000	Digen.	05050	. 10460	64470	, 66669	.54420	00000	
ALPHA CNM CLM CYNM CYNM CND00506046650050005182 ALPHA CNM CLM CYNM CYNM CND S.00 S.00 S.00 S.00 S.300		CARNER	0.000	06627.5	0.00	~, 09805	. 41013	000	****		00000	2000
ALPHA CNM CLIM CYM CYM CBL CA CAB KCPAL 62.007 5.00 ALPHA CNM CLIM CYM CYM CBL CA CAB KCPAL 62.300 7.71700 3.107101394004790 .11250 .34620 .05000 .51220 62.300 7.71700 3.05540127700440 .10200 .27770 .05000 .51210 86.410 7.61530 2.725600938007440 .11080 .09410 .050500 .52180 96.410 7.61590 2.316901152006710 .1083014410 .050500 .52180 96.410 7.77430 1.807201132006710 .1083032140 .050500 .33180 100.270 7.68890 1.7531018770 .06590 .1157022140 .050500 .33280 90.400 7.77460 2.7150008840 .1153010650 .05050 .32880 .				02000	Scano.	. 00750	-,00006	04865	00000	.00182	00000	D4865
ALPKA CN4 CLIM4 CYM CYM CYM CBL CA CAB XCPAL 05.350 7.71790 3.10710 -112770 -104790 11250 .34620 .05000 .51250 62.350 7.71790 3.0550 -112770 -04460 .10120 .27770 .05000 .51410 96.410 7.86520 2.92520 -11510 -07440 .11030 .09410 .05000 .51410 94.410 7.81530 2.729600938008800 .1214011410 .05000 .51180 94.410 7.81890 2.3159001520 .1214011410 .05000 .52180 94.410 7.81890 2.3159001520 .10570 .05210 .103501157022160 .05000 .53110 100.270 7.61890 1.7331019170 .05390 .1157022160 .05000 .53380 90.400 7.77460 2.715000884008330 .1157015680 .05000 .52180 .83180			# N.		3		IENT INTERV					
90.510 7.71780 3.107101394004790 .11250 .34620 .60000 .51250 .62.390 7.76100 3.635401277004460 .10120 .27770 .05000 .51250 .62.390 7.76100 3.635401277004460 .10120 .27770 .05000 .51410 .90.400 7.61330 2.729600939007440 .11080 .09410 .05000 .52180 .94.410 7.61330 2.71500939006710 .1083012460 .05050 .52180 .94.410 7.61890 1.753101132006710 .1083034866 .05050 .52180 .107.0 7.68890 1.753101137022160 .05050 .33980 .90.400 7.77460 2.7150008840 .1137022160 .05050 .33980 .90.400 7.77460 2.7150008840 .11370151660 .05050 .33980 .90.400 7.77460 2.7150008840 .11370105060 .05050 .33980 .90.400 7.77460 2.7150008840 .11370105060 .05050 .33980 .90.400 7.77460 2.7150008840 .11370105060 .05050 .33980 .90.400 7.77460 2.7150008840 .11370105060 .05050 .33980 .90.400 7.77460 2.7150008840 .11370105060 .05050 .33980 .90.400 7.77460 2.7150008840 .11370105060 .05050 .33980 .90.400 7.77460 2.7150008840 .11370105060 .05050 .33980 .90.400 7.77460 2.7150008840 .11370105060 .05050 .33980 .90.400 7.77460 2.7150008840 .11370105060 .05050 .33980 .90.400 7.77460 2.7150008840 .11370105060 .05050 .33980 .90.400 .11370105060 .05050 .33980 .90.400 .11370105060 .05050 .33980 .90.400 .11370105060 .05050 .33980 .90.400 .11370105060 .90.400 .11370105060 .90.400 .11370 .90.400 .90.400 .11370105060 .90.400 .90.400 .11370105060 .90.400 .	ž	ALPKA	3	¥ 70	A.	2	é					
62.390 7.76100 3.0550127700460 .11250 .34620 .00000 .51250 66.410 7.86020 2.050201277000000 .51410 60.410 7.86020 2.926201161007440 .11080 .09410 .00000 .51410 94.410 7.81330 2.729600938008810 .121401141000000 .52180 94.410 7.8180 2.310901152006710 .108034865	094		7.71790	3.10716	11040	200	-6-	5	CAB	がアイ	1960	3
96.410 7.86G20 2.22521161007440 .10120 .27770 .CDGGD .31410 90.400 7.81330 2.729600398008900 .12140 .09410 .GDGGG .31780 94.410 7.81590 2.729600398008900 .1214011410 .GDGGG .32780 94.410 7.81890 2.31G901152006710 .1083038865 .GDGGG .33110 100.870 7.87830 1.8072018170 .GS390 .1157052160 .GDGGG .33980 90.407 7.68890 1.7331010670 .GGGGO .1035060560 .GGGG .32980 90.407 7.60890 .2715000884008830 .1153010680 .GGGGG .32180	960		7.76100	0.5540			11250	.34620	,00000	.51250	. 00000	24690
90.400 7.81350 2.7296009390121401141005050 .31780941005500 .31780	096		P. ARGON		D.J. 27.		10120	.27770	00000	.55410	00000	0
94.410 7.61690 2.316901058006610 .1214011410 .05500 .32180 .321	000		C 2000 A	6.35050	-,11610	07440	.11000	.09410	, 00000	.51780	00000	0.1.0
98.20 7.77430 1.507201152006710 .1083034860 .00050 .33110 . 100.270 7.68890 1.7531010070 .06640 .1157052140 .00500 .33980 . 90.463 7.77460 2.7150006640 .1035060060 .00505 .34280 .00505 7.77460 2.7150000830 .1153010680 .00505 .32180 .	28.0		00000	6. (2980	09390	00800	12140	11410	. 65099	00165	0000	01450
## ## ## ## ## ## ## ## ## ## ## ## ##	3		0.010.	06016.3	-,11520	06710	.10630	-,34865	65050	20114	00000	11410
100.270 7.68890 1.7531010070 .06640 .1035060560 .06550 .34260 . 96.460 7.77460 2.715500884008830 .1183010686 .05550 .34280 .	2 5		7, 774.30	1.96720	19170	08330	11570	- 5216F	90000		00000	. 34660
\$6.400 7.77460 2.715000884008850153016880 . 54280	96		7.68890	1,75310	10070	, 06640	10380	60000	2000	08656	.00000	52140
Derest goods negative profits posters that	60	90,465	7,77469	2.71550	DBB40	DROND.		nenne"-	00000	. 54260	00000	60060
						2000	200					

A Chillian

DATE 03 AUG 74	AUG 74		TABI	LATED SOURCE	TABULATED SOURCE DATA, MSFC TUT 983	FC TAT 563				ž	PAGE 20
			¥	FC 503 (TAIF	MSFC 563 (TAIF) 324 IN. DIA. ET (418 MD) WGRIT	IA. ET (418 1	CD) WGRIT		(R.99 03 F)		(#0 mAR 74)
	ACTE	ACTERENCE DATA							DADAMETOIC BACA		
tatt .	.7420	86. IN XXCP	u	S Page 1					T N.K. APPL 9 14 3 L.	£	
LRCF #	.9720) ju	0000				BETA :	000.	PHI	160,000
BAU .	.9720	z		.0000 IN							
SCALE &	.0030										
		2	RUN NO. 108/ 0	O RIVL	. 0	GRADIENT INTERVAL =	RVAL = -5.00/	9, 8,00			
-	AL PMA	3	3	3	į	1					
1.953	-	•	32270		200	3	ð	CAB	XPA	CP61	Š
1.953		-	-,25370		06200	03960	64390	.00000	. 59340	00000	64390
1.933	122.950	5.66890	08160	01670	06190	2400	DE000'-	00000.	. 59070	00000	60030
1.953		6.46540	.13590	01600	Desan	2446	3000	00000	.58490	. 00000	49750
2.953		6.69560	.53760	-,01500	05310	04280	DA 20 4	00000	.57660	00000	41290
. e 55		7,22630	.88050	04010.	04490	DARROD	0.010.	00000	. 56890	. 00000	31270
. 69.		7.36400	1.04320	06700.	04410	CARON	04040	00000	26130	00000	15300
1.953	116.920	6.24460	.23780	01080	05400	03840	10000	Dogoo.	.55780	00000	05950
	GRACIENT	11395	06933	00121	.00164	-,00062	02795	00000	257580	00000	42710
										nonna.	02795
		RUN NO.	NO. 68/0	O RNA =	6.22 CRA	CRADIENT INTERVAL =	WL = -5,00/	00.8 /0			
MACH	AL PHA	3	CLAN	3	35	É	;				
27.5	129,340	4.67060	07530	08730	CROSC	200	5 i	SY S	メデ	<u> </u>	£
2.47	127,410	4.91510	01430	0.101	Dead.	00000	73710	00000	.58530	00000"	73710
3.479	123,370	5,40960	.16580	11580	10540	00000	00169	00000	.58300	.00000	69100
S. 8.70	119.310	5.93090	.31340	13970	Cosol	20000		00000	.57710	. 00000	56610
S. 4.70	115,250	6.39050	.53780	16820	Deceal.	06560	44490	. 00000	.57330	. 00000	-, 44490
3.479	111,250	6.60695	.65450	19880	04850	0000	1.00000	00000	.56780	.00000	33460
2.47	109.340	6.91550	1.03170	19940	03560	02011		00000	. 56070	00000	22000
# T. P	118.310	5,92480	.29710	1471G	09050	DSARG.	44240	20000	.55650	. 00000	-,15950
	CAACIENT	-,11479	.,05390	.00583	, 50253	00169	-, 02894	.0000	92100	00000	04240
		SUN NO.	0. 67/ 0	RNY. "	4.90 CRAC	GRADIENT INTERVAL ::	/A. = -5.00.	2			
MACH	4		,								
-	100 660	¥ 5	ł	ž	CANE	ę	ð	CAB	No.	9	
	000.411	00000	. 09400	13870	.05600	. 10150	77010	00000	57890	2000	4
200	200,120	0.000	16420	14100	.04070	.11650	-,72250	00000	47660	2000	77010
	153.750	5.37060	.31720	-,16780	00660°	.10240	-,61550	. 00000	47226	00000	72250
	202.01	5.61670	.45430	19320	09640.	. 12630	48610	00000	86000	00000	61950
200	119.000	6.31670	68720	20860	.10640	.11730	-,36520	00500	96160	00000	46610
	111.670	6.69380	.91170	22290	.10790	.12200	22570	יטטטט	00000	30000	36580
	109,760	6.68110	1.10590	23470	. 05920	13720	16630	00000	20 44	00000	", P2570
4.960	119,700	5.01710	.45420	17630	. 09330	.11950	48620	ייטטטיי.	00404	00000	16630
	CAACIENT	11485	G4886	.00495	00078	60128	-, 03062	00000	25000	00000	48620
								2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	11100.	. 00000	63 662

MSFC SAS(TAIF) SE4 IN. DIA. ET (418 MOD) M/GRIT

### 1000			MUTERENCE CATA										PAS	PARAMETRIC DATA	DATA	
STATE 1. Table 1. State 1. Sta	-	.7429	3	99												
## 1972 11. PRP #0000 11. ### CHA CHA CHA CHA CHA CHA CHA CHADEN INTERM_ = -5.00	AUF.	9776.	ž	9	L 64	. 0	360 IN.					BETA	••	000		160,000
*** **CASA*** CA** CL*** CT** CT*** CB** CA** CB** CA** CA** CA** CA** C		6246.		ZYRA	50	5	100 Te.									
144.191 3.34560 -7.24590 -1.08290	a Hay	0633.														
123, 130 3,23500 -1,23500 -1,0820 -1,01850 -1,18190 -1,01810			•	3		0 /	\$			IEM IME						
146.150 3.4450	HACH	ALPHA	3		2		3	5	2	É	á					
131,1310 1,13540 1,13540 1,13540 1,13540 1,13540 1,10000 1,35740 1,0	1.944		* 3464	5	200	5	2000		5	3	5	9		XCPA	<u>C</u>	ğ
131, 1560 1,00000 1,	1.044		C	2 9	C6.4.	2 1	- 0862		3961	.02500	-1.12190	0000	ø	.59780	. 0000	1.19190
137.350 138540 118240 118240 118240 118240 118240 118240 118240 118240 118240 118240 118240 118240 118240 1182410 100000 185750 100000			3.653	2 1		20	-1082	•	3520	.02670	-1.09410	0000	0	59400	0000	2000
137.350 5.0850 02760 14700 .07330 .03720 66210 .00000 .56350			•	2	122	5	-, 1410		9690	.03320	-1.04110	0000	_	207.00		
133,334	***			9	027	90	~. 14CD		330	03720	- 96750	10000	, ,		2000	
4 123-139 6.19490 .0863006520 .03490 .4045077570 .00000 .58610 .00000 .00	1.944		5.6570	Ö	.056	Ç	09291		067	03710	04440	2000		3 6 6 6 6	nono.	96750
## 137.720 #.131201950195095309530953090005842090000584205842090000934209000093420	1.944		6.1949	Ö	.088	Ď	6652r		407	00000		1000		DANC.	0000	-, 85430
## 197.720 4.89120102605102605 .00269502104 .000000 .958420 .000000 .000000 .958420 .000000 .000000 .958420 .000000 .000000 .958420 .000000 .000000 .958420 .000000 .000000 .958420 .000000 .000000 .958420 .000000 .000000 .958420 .000000 .000000 .958420 .000000 .000000 .958420 .	1.944		6.3782	0	1312		CAROL			200	D/66/*-	,0000		58000	0000.	73570
### Chair Ch	1.944		A REED		0406				2 1	accen.	-,68210	. 00000		57690	0000	68210
ALPHA CNH CNH CLH CTH CTH CHA GRADENT INTERNAL = -5.00, 3.00 ALPHA CNH CLH CTH CTH CTH CDL CA CAB 146.850 2.63140 -22020 -104000 .04170 .113120 .100000 .39730 .000000 .39730 .00000 .39730 .00000 .39730 .00000 .		COACIFIC	9434			2 3	10001		280	.03460	-,94430	30000.	Ĭ	58420	0000	94430
### CAH CAH CAH GRADIENT INTERVAL = -5.00, 9.00 ##### CAH CAH CAN GRADIENT INTERVAL = -5.00, 9.00 ##################################					. 000	ű.	vuz4		293	00008	02104	30000		98000	0000	.02104
186.860 2.85140 23020 04000 .04170 .01910 -1.11120 .00000 .59750 .00000 .19120 .191			Ō.	2		0 >	RNA :			ENT INTER						
146.660	#CH	ALPHA	3		3		E S	2	,	ē	ť	97	•			
146.690	27.5	146,860	2.6514		2302	ø	04000			200		9000		74.		ጀ
136.350 3.42470 26030 04540 .06640 .02540 -1.01040 .59550 .00000 .59550 .00000 .000	2.1	146.890	8.9G20(.2176	0	03420		510	12.560	Coton to	00000		39730	0000	-1.11120
136.590 3.695701496004650 .0435023560 .00000 .58560 .00000 .58560 .00000 .58560 .00000 .58560 .00000 .58560 .00000 .58550 .00000 .58550 .00000 .58550 .00000 .58550 .00000 .58550 .00000 .58550 .00000 .58550 .00000 .58570 .00000 .58580 .00000 .58570 .00000 .58590 .00000 .58570 .00000 .585	3.47	142.730	3.4247		.2003.		04540		5	02040	000000	מספספי.		00000	.0000	-1.06480
135.440 4.518300784005040 .09210 .0289078890 .00000 .58850 .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000 .0023078890 .00000 .00000 .58870 .00000 .00000 .00000 .58870 .00000 .00000 .58870 .00000 .00000 .58870 .00000 .00000 .58870 .00000 .00000 .58870 .00000 .00000 .58870 .00000 .00000 .58870 .00000 .00000 .58870 .00000 .00000 .58870 .00000 .00	2.4.2	136,590	3.9597		1496		04150		200	04400	0200	ocoon.		29260	. 00000	-1.01760
130.330 5.03420 .0223005410 .10770 .0529074890 .00000 .58170 .00000 126.370 .00000 .00000 .58170 .00000 .00590 .10740 .05290770150 .00000 .58170 .00000 .00000 .00000 .58170 .00000 .00000 .00000 .58170 .00000 .00000 .00000 .59240 .00314 .0010500314 .0010500314 .001079 .00000 .59380 .00000 .59380 .00000	3.47	134.440	4.51830		0784		OSUV.			00000	108cs-	00000	•	26900	. 00000	~.93960
136.500 3.97240 .09360 .10260 .0955074890 .00000 .58170 .00000 139.2074890 .0000058170 .000007489000000074890000000748900000074890000007489000000748900000074890000007489000000748900000074890000007489000000748900000074890000007489000000748900000074890000007489000000074	3.478	130,330	5.03420		0221		CEALD	•	2 6	. 04960	-, 8482D	. 55555	•	58550	.00000	84820
136.580 3.972401743000340 .0055070150 .00500 .57920 .00500 .005	3.479	128.370	5 29470		7.700			201.	2 9	06257	74890	. 00000	•	58170	.00000	74890
### CAMPIENT1291801534 .00105003540017902013 .00500 .59010 .00000 #### CAMPIENT1291801534 .00105003540017902013 .00500 .00007 .00000 ##### CAMPIENT CAMPIENT CAMPIENT INTERVAL = -5.00, 5.00 #### CAMPIENT C	3.479	136.580	3.979.0		1000		20000	201	200	.05550	70150	. 00000	•	57920	.0000	70150
ALPHA CHM CLLM CYM CYM CBL CA CAB XCPAL CF61 149.310 2.00000 .00007 .00007 .00000 147.0		COAPIENT					7 1 1 1 1 1 1	c s		114230	-,93980	00000		19010	.0000	DAGAG
ALPHA CAM CLEM CYNM CNM CBL CA CAB XCPA, CFB1 149.310 2.26921936006550 .04440 .04570 -1.10490 .05000 .59710 .00000 147.390 2.5599019660 .04440 .04670 -1.07960 .00000 .59710 .00000 159.240 .00000 .0516010780 .07140 .04470 -1.01930 .00000 .59340 .00000 159.240 3.553900661007160 .07140 .06410 -1.01930 .00000 .59380 .00000 .059300661007160 .05360 .05310 .0651068480 .00000 .59870 .00000 159.270 .0681012930 .06510 .0651077760 .00500 .58380 .00000 159.270 .00000 .77760 .00500 .57670 .00000 159.270 .00000 .5767008430 .00000 .57670 .00000 .57670 .00000 .57670 .00000 .57670 .00000 .57670 .00000 .57670 .00000 .57670 .00000							co too.			. 00179	G2013	.00000		10000	.00000	02013
ALPHA CAM CLEM CYM CYMM CBL CA CAB XCPA, CFB1 149.310 2.289201936006630 .04650 .03510 -1.10490 .00000 .59340 .00000 147.390 2.505901366006200 .04440 .04670 -1.07960 .00000 .59340 .00000 189.240 3.5359006410 .07140 .07140 .10450 .00000 .59340 .00000 189.240 3.5359006410 .07140 .05250 .06250 .59370 .00000 183.140 4.082500316010730 .08560 .0591085880 .00000 189.240 4.08630 .1617012930 .0765075760 .00000 .58590 .00000 189.240 4.08630 .0617012930 .0765075760 .00000 .58590 .00000			J.	ý z			RN/L =	5.30	GRADIE	ONT INTER						
149.310 2.289201936006630 .04650 .03510 -1.10490 .00000 .59310 .00000 147.390 2.305901386006200 .04440 .04670 -1.07960 .00000 .59340 .00000 148.300 3.0516007180 .07180 .07140 .04410 -1.07960 .00000 .59340 .00000 139.240 3.5539006430 .07180 .07140 .0525094430 .00000 .59370 .00000 139.240 3.5539006430 .05560 .05590 .05590 .59370 .00000 139.140 4.59550 .0100012750 .05590 .05500 .58380 .00000 129.210 4.88830 .05500 .55370 .000000 139.240 .05500 .55370 .000000 139.240 .05500 .55370 .000000 139.240 .05500 .55330 .000000 .57740 .000000 .57740 .000000 .57740 .000000 .57740 .000000 .57740 .000000 .57740 .000000 .57740 .000000 .57740 .000000 .57740 .000000 .57740 .000000 .57740 .000000 .57740 .000000 .57740 .000000 .57740 .000000	#C#	ALPHA	3	J	¥		X.	CYNE		ē	ć			ď		
147.390 2.503901386006200 .04440 .04670 -1.07960 .00000 .59340 .00000 139.200 3.0316007180 .07140 .04470 .04670 -1.07960 .00000 .59340 .00000 139.240 3.5339007180 .07140 .04100 .06230 -94430 .00000 .59330 .00000 139.240 3.533900316010730 .05560 .0591065880 .00000 .58570 .00000 139.140 4.5860 .0620 .0561075760 .00000 .58570 .00000 139.270 4.88830 .1617012330 .0767075760 .00000 .57740 .00000 .57740 .00000 .57740 .00000	4.960	149,310	2.26920		19360	Ī	06650	046	5	0380	2000	2	×	<u>ح</u>	£	ž
143.300 3.031601406007400 .04410 -11.01930 .00000 .59340 .00000 139.240 3.55390 .00000 .59340 .00000 139.240 3.553900661007400 .02410 -1.01930 .00000 .59030 .00000 .59030 .00000 .00000 .59030 .00000 .00000 .00000 .00000 .00000 .00000 .00000 .25040 .00000	4.960	147.390	2.50590		15860		Cean		3 9	0.000	1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.	tanno.		9710	. 20000	-1.10490
139.240 3.5539	4.960	143,300	3.05160		44.000		0.00			200	-1.07960	.00000	er)	9340	. 00000	-1.07960
135.160 4.002500316010730 .08560 .0851085860 .00000 .58570 .000000 135.160 4.59660 .010730 .08580 .0591085880 .000000 .58380 .000000 .259.210 4.58650 .0651012160 .0651075760 .00500 .57940 .000000 139.210 4.66310 .1617012930 .0767077560 .005000 .57940 .000000 .57670 .000000 .57670 .000000 .57670 .000000 .57670 .000000 .57670 .000000 .57670 .000000	4.960	139.240	20.00	•	Gee		2000	120.		04410	-1,01930	. 60000	ą,	9030	. 00000	01930
131.140 4.59660 .0810912160 .08560 .0591085880 .05050 .58580 .00000 .00000 .131.140 4.59660 .0610012160 .06310 .0661075760 .05500 .57946 .00000 .159.70 4.68630 .1617012930 .0767075980 .05000 .57670 .00000 .3567009150 .00000 .0767094340 .050500 .58690 .00000	080	118 140	1000	í	3		3	. 033		.06250	94430	.00000	ç	8570	.00000	04770
129.210 4.88850 .0810912160 .06310 .0661075760 .00500 .37940 .00500 1129.210 4.88830 .1617012290 .07050 .07670710960 .05000 .57670 .00500 139.240 3.553300915008540 .06520 .0677094340 .05000 .88690 .00500	200		20000	ř	03160		10730	.065(.05910	85880	. 55559	47	8380	ממטטט	2 4
129.210 4.86830 .16170 -,12930 .07050 .07670 -,70980 .05000 .57670 .00000 139.240 3.55330 -,09150 -,08640 .06020 .06770 -,94340 .00000 .58690 .00000		131.140	4.59860	•	08100		,12160	. 0631		.06610	75760	. 05599	. *	2046	9000	93090
139.240 3.55330 -,09150 -,08640 .06620 .06770 -,94340 .05050 .58690 .00000	. 960	129.210	4.86830	٠	16170		12930	.070		.07670	70980	00000	: •	2 4	00000	75760
COCCO CASSACT COCCOC CASSACT COCCOC CASSACT COCCOC CASSACT COCCOCCOCCOCCOCCOCCOCCOCCOCCOCCOCCOCCOC	. 96t	139,240	3.35330	٠	09190	•	08540	.0602		04770	04446	2000		707	00000	.,75980
		1								2			•		4446	



DATE GI	DATE US AUG 74		Ϋ́	TABULATED SOURCE DATA,		HSFC TAT 563		
				MSFC 563 (TAIF) 324 IN.	324 IN.	DIA, ET (418	OIA, ETIMB MODI LIZERT	
	ROT	RUTREME DATA						
ant.	.7420 34.	Z	9					
180	. 9729	N.		N1 0662'C				95.44
BAD.	.9720 IN.			. occo IN.				S
BCALE R	.0030			'NI DOOD				
		•	RUN NO. 125/ 0	O RMA =	2.00	GRADIEM INTERVAL		
MACH	AL PHA	3		•			700 °C Tues	00.6 /00
1.947	ž				CYN	ෂ්	3	6
1.947	•		01000.		01150	.00160	-1.29360	2000
1.947		_			00680	.00150		COULT.
1.947	156.950	-	-,37630		00260	.00390	-1.27790	ישטטיי
1,947	154,680				06700	.00510	-1.24920	יטטטט.
1.947	150.470			02720	.02500	.01360	-1.23190	00000
1.94	140,460	3.48590			.00240	.01800	-1.17280	00000
1.947	156,985	1.95020	Ì	ביינונט -	.03920	0210.	-1.14290	.00000
	GRACIENT	13545			00370	.00510	-1.23560	.00000
				# R 202 .	00108	00084	00702	.00000
		A.	RUN NO. 39, 0	O RN/L =	6.32 GR	GRADIENT INTERMAL =	194L = -5.00/	3, 9, 00
Ž	ALPHA	30	2		í			
24.0	169,520	.62390	45500		1	ල්	3	CAB
24.0	167.650	.75790	46950	08930	un70	~,00120	-1.27960	.00000
2.43	165.950	1,56790	48230	Owner.	01480	.00710	-1.27490	.00000
2	159.400	1.42640	** 45030	19690	00480	.05610	-1.25310	.00000
2.43	155.270	1.86150	35130	10000	00900	.01270	-1.22210	00000
2.47	151.163	£.36710	25050	- 0266U	.01540	.00380	-1.18810	00000
2	149.200	2.61665	22650	01020	01150	.01600	-1.14430	00000
2.67	159.400	1.43940	45240	02130	01990	.02480	-1.12290	. 00000
	SAADIENT	£.0960	01244	.00017	00228	00067	-8.22550	.00000
		SIN NO	0,00					20000
				¥	5.01 GRAD	GRADIENT INTERVAL =	AL = -5.00/	3.00
1	A PAR	Š	3	787				
. 900	169.640	.55000	40970	- 059en	100	g :	z	CAB
4,960	167.750	.63280	47300	00890	00000		-1,25270	.00000
4.960	163,700	.90540	52230	01680	Dereg Dereg		-1.24890	, 55000
200.	139,660	1.21650	47320	-, 52480	Dead.		-1.22710	.00000
104.	086.561	1.65160	-, 32770	03300	01970	2000	-1,19340	. 66590
200	151.560	2.10040	24690	03070	04250		-1.17145	, შნინი
704.	149.630	2.35660	20420	02150	07040		-1.14100	. 00000
	159.660	1.19100	48410	01300	00,00		-1.11580	,00000
	GRADIENT	*, 59565	01285	_	00237	00000	1.19890	. 00000
						בי בחבום	-, 5578	. 05000

CPC -1.29360 -1.29340 -1.2790 -1.2190 -1.17260 -1.17260 -1.17260 -1.17260 -1.17290 -1.29360 -1.00702

. 00000 . 00000 . 00000 . 00000 . 00000 . 00000

CFC -1.27960 -1.27490 -1.25310 -1.28210 -1.1430 -1.1430 -1.12290 -1.12290 -1.00761

. 00000 . 00000 . 00000 . 00000 . 00000 . 00000 . 00000

XCPA. .70940 .68990 .66090 .63730 .61490 .61490 .59750

CPC -1.25270 -1.25270 -1.19340 -1.117140 -1.11500 -1.11500 -1.1500 -1.10690 -1.00676

. 00000 . 00000 . 00000 . 00000 . 00000 . 00000

XCPA. .71180 .71230 .68260 .61690 .61690 .60290 .59750

Cloud

1

PAGE

(R99039) (80 MAR 74)

140, 500

.000

PARAMETRIC DATA

(R99040) (20 MAR 74

160,000 PARAMETRIC DATA E 000. BETA MSFC 503 (TAIF) 324 IN. DIA. ET (418 MCD) WGRIT 3.2590 IN. .0000 IN. .0000 IN. 27-52 P RUTERDICE DATA .7420 89. .9720 IN.

REGY S. BREGY S. SKALE S.

CPC -1.25000 -1.25000 -1.25500 -1.2660 -1.26600 -1.26600 -1.26600 -1.26600 -1.26600 . 00000 . 00000 . 00000 . 00000 . 00000 . 00000 75960 75960 76960 83660 78750 777500 77350 77350 .00000 .00000 .00000 .00000 .00000 6.99 GRADIENT INTERVAL = -5.00/ 5.00 CA -1,25980 -1,25590 -1,25590 -1,2650 -1,26600 -1,26600 -1,26600 -1,26600 -1,26600 .01500 .01500 .02560 .02560 .02540 .02570 .02530 .02530 00117 RUN NO. 126/ 0 -,56450 -,39910 -,13380 -,17260 .51340 179.780 175.630 171.540 171.540 179.760 GRADIEAT 166,040 1.958 1.938 1.938 1.938 1.938 1.938

CPC -1.21450 -1.21450 -1.25090 -1.25000 -1.26200 -1.26200 -1.26200 -1.26200 CP81 . 00000 . 00000 . 00000 . 00000 . 00000 68420 68420 74400 77550 77550 77550 775950 77950 60710 CA8 .00000 .00000 .00000 .00000 .00000 1.21450 1.22360 1.22360 1.22360 1.1.26500 1.1.26200 1.28200 1.28210 CBL .00330 .01480 .00620 .01700 .00500 .00530 .00530 CYNM . 01910 . 00620 . 01270 . 01270 . 02250 . 02130 . 06510 . 06510 . 01320 . 00138 CYM .0'190 .00900 .00000 -.00010 -.00330 -.00450 .00720 .28400 .28400 .08960 .09600 ..28600 ..45680 CAM -.45360 -.51720 -.09650 .27430 .49560 .62450 .06940 ALPHA 169.670 167.950 183.860 179.790 175.700 171,630 169,710 179,790 GAADIEM ***********

GRADIENT INTERVAL = -5.00/

3

CPC -1.16760 -1.17960 -1.22560 -1.22590 -1.25590 -1.22530 .00460 CP81
.00000
.00000
.00000
.00000
.00000
.00000 70340 .63990 .63990 .65690 .75240 .75240 .75240 .02100 .02100 .00470 .00450 .00450 .00450 .00450 .0020 .0020 .00370 .00370 .02690 .02690 .02620 CYM . 00120 . 00120 . 00560 . 00560 . 00630 . 00630 . 00630 23110 23110 17090 17090 17090 17090 17090 17090 17090 17090 187,890 171.760 179.810 GRADIENT 189,800 163.640 179.010 173.770

5.01 GRADIENT INTERVAL = -5.00/

CATE US AUG 74	AUG 74			TABLEAT	TED BOURCE	TABULATED SOURCE DATA, MSFC TUT SAS	C 1WT 583					PACE	38
				7	503 (TA1F)	MSFC 565 (TAIF) 324 IN. DIA. ET (418 MOD) WERIT	A. ET (416 NC	D Walt		(899041)		C ED MAR 74	_
	ROTREM	ROTRENCE DATA								PARAMETRIC DATA	DATA		•
5	.74E0 39. IN		# dishox	5,25	5,259G IN.								
LAG .	.972G IN.		YHRP R	00	. 0000 IN				DE TA	000	E	* FF5.000	90
BASS" .	.9720 IN.		ZNGP E	00.	W 0000								
SCALE =	0800.												
		3	RUN NO.	177 0	RNA #	4.97 GR	GRADIENT INTERVAL = -5.50/ 5.00	IVAL = -5.6	00' \$ '00				
MACH	AL PHA	N.	3	₩.Jo	Š	3	ē	č	95	ş			
4.960	-9.810	61100	•	.82350	04790	00520	06920	46000	Cooper	XPA.			
4.960		46020	·	67860	.04280	01550	02760	45430	04400	10640	nonna.		43730
4.960	7	19910	8	.37790	.02670	03480	01000	45310	02150	24030			01164
4.960		06670		.01500	.02870	.00000	.00270	.45660	02100	53030			20104
4.960		29750		30630	.01780	C3270	.00010	.46190	06150	40360	00000		14000
4.960		.55920		63180	03120	09000*-	.01360	.48050	.02310	38620	00000		45730
100	=	70970		75240	.63110	CB610	.01610	.49320	.02430	39830	00000		45800
4.860	002.	07870	-	.00820	.02870	00580	,06220	.45200	.02240	. 56360	00000		000
	SEADIENT STATE	. Del 38	•	9456	00110	. 00025	00000	.00109	.00005	.01859	. 00000		00104
				S DASH	163 (TA1F)	WSFC 563 (TAIF) 524 IN. DIA. ET MIR MON LUCELY	Er (4)B Lord	1,000,00					٠
										(Asserte)		C EU MAR 74	_
	APPENDACE DATA	E DATA							u.	PARAMETRIC DATA	DATA		
24C	.7420 SQ. IN	N WES	u S	3.259	3,2590 IN.				1				
LAST	.9720 IN.		8 05	000	.0000 IN.					200.	EM IN	225,000	9
SCALE .	.0720 IN.	2469	u 8	000	.0000 IN.								
		2	S. NO.	18/ 0	R	4.97 GRAI	GRADIENT INTERVAL =		-5.00/ 5.00				
#O#	ALPHA	ž	3	x	CYR	3	Ē	đ	970	į			
4.960	10.510	.65910	.78	78150	.04290	08880-	01200	SORE	25.00	48.40		_	
4.960	12.410	.95610	28.	.92690	04400		02160	A2870	00400	7.450	00000		.46430
4.960	16.470	1,33620	1,14740	740	.05060	09050	.01630	.55260	02430	04144	מטממה.		00000
4.960	20.530	1.81520	1,33130	130	.05340	16230	.03840	59380	.02460		2000		02926
4.960	24.610	2,39970	1.48890	890	.06780	13660	08690.	.63510	.02510	47470	0000		01890
4.960	29.660	2.99800	1.66850	850	OFTO.	-,17830	.07130	.67350	. 02520	48580	מממטים.		
4.960	80.330	3.26270	1.74270	270	.11100	22840	.06940	.68920	.02550	49020	0000		02980
4.960	20,530	1.62965	1.35370	370	06480	10490	.03510	.59110	. 02550	45390	.0000		200
	CRACIENT	.12337	. 04653	653	20200	00834	. 00408	91600.	90000	. 00388	00000		.06911

PAGE 34	(R99043) (EO MAR 74)	•	225, 400
•	80		4
	<u> </u>	DATA	Ĭ.
	(R9904)	PARAMETRIC DATA	000
			er
			BETA
	WGRIT		
	8		
M 563	ET (418		
FC 1	JIA.		
¥	ž		
DATA	324		
SOURCE	S (TA1F)		ž ž ž
TABLLATED SCIRCE DATA, MSFC TVT 563	MSFC 563 (TAIF) 324 IN. DIA. ET (418 MOD) WGRIT		3,2590 IN. .0000 IN.
			10 11 11
		4	YARP YARP
		CAT	Z
		ENCE	\$ <u> </u>
AUG. 74		AUTREME CATA	.7426 94. IN .9720 IN. .9720 IN.

225,600				09924							•
# # # # # # # # # # # # # # # # # # #		CPB1	.0000	00000	00000	.00000	00000	.0000	. 00000	00000	00000
900.		XPA	.50050	50970	.51260	,51420	.51340	.51490	.51520	.51360	.00031
BETA :	00.6 /	CAB	.00000	.00000	.00000	00000	00000	00000.	00000	.00000	00000
	VAL = -5.00/	ర	.74510	. 73660	.70660	.65040	58690	.52970	.47570	.66500	-,01360
	RADIENT INTERVAL	ෂ්	.22750	.25300	.25700	.28260	.30140	.30860	.31930	.28320	.00427
	4.96 GRA	3	23420	20850	-, 15980	12150	02960	06000	03960	-,11490	.01437
90 IN.	# Z	CYM	.29920	30140	.31780	35040	.37830	.34250	38920	.35030	.00408
3,2390 0000.	NO. 79/ G	Ŧ	2.61840	2,68260	2.81770	2.96390	3.20520	3,27960	3.34130	2.97480	.03764
IN DORP	RUN	ş	6.14660	6.40510	7.05420	7,54450	8.06110	8.43540	9.63040	7.50620	.12561
. 1426 94. . 9720 IN. . 9720 IN.		ALPHA	50.400	\$2.290	56,330	60.360	64.400	66.400	70.310	69.369	CRACIENT
8407 : 1407 : 8407 :		MYCH	4.965	4.950	4.980	4.960	4.960	4.060	4.960	4.960	

				MSPC 583 (TAIF) 324 IN. DIA. ET (418 MD) WORIT			(R990	3	20	(R99044) (20 MAR 74
	REPERENCE DATA	*				_	PARAMETRIC DATA	C DATA		
#4D.	.7420 SA. IN	A CHANGE	14	3.2590 lw.	BETA	48	.000	£	88	225,000
#	.N. 0246.			. ODGO IN.						
*	.9720 IN.			.0000 IN.						
*	0000									

4.960 6.960 6.960	ALPHA 60.560	3									
	0.560		£-0	CYK	£	ਵੱ	ð	CAB	XP.	69 199	8
_		9.12840	3,16670	.41530	.03180	.33080	.25270	00000	. 52220	00000	.25270
	Z.440	9.15360	3,10300	.42190	,06190	.34510	17330	.00000	. 52360	00000	17330
	6.460	9.25450	2.94850	.43880	,02450	.33640	-,02350	00000	. 52710	.0000	02350
	0.450	9.30380	2,74270	.44510	.02120	.35450	23880	.00000	.53130	. 00000	23880
	4.460	9,35270	2.38260	.46260	09200	35970	42070	00000	.53820	. 00000	42070
	6.430	9.27670	2.01600	.45140	.01360	.33830	54710	.00000	. 54470	. 00000	54710
	0.320	9.26950	1.84170	.45130	00710	.36030	-,61700	00000	54800	.00000	61700
	0.450	9,20950	2,73180	.44520	.03400	.35550	24290	. 00000	.53140	, 00000	26290
3	CIENT	.00837	06771	.00194	-,00236	\$6000.	64490	00000	.00132	.00000	04490

S A	DATE DS AUG 74		AT.	TABILLATED SOURCE DATA,	E DATA, MSF	MSFC TUT 563					PAGE	50
			-	HSFC 503 (TA1F	HSFC 583 (TAIF) 324 IN. DIA, ET (418 HOD) WGRIT	A. ET(418 H	OD WORLT		(899045)		(20 MAR 74	
	REFERENCE DATA	CE DATA							PARAMETRIC DATA	DATA		
		¥	40 EL	5.2590 IN.				SETA =	000	u III	225.000	9
	.9720 IN.	- 4 4 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6		. 0000 . N.								
		2	RUN NO. 65	69, G RNA =	4.89	GRADIENT INTERVAL =		-5.00/ 5.00				
#O#	AL PHA	ş	¥,	E	SAN C	ਵੱ	3	CAB	XPX	CPB	â	
4.960	129.600	5.65860	.05810	0		.26360	81720	.00000	.58070	.0000	Ĭ	517EU
4.960	127.660	5,95920	10890	001111.00	.05160	.29570	76620	. 00000	.57930	00000		76620
4.960	123.650	6.62170	.27940	10 .14060		.33410	65580	00000°	.57510	,00000	Ī	-,65560
4.960	119,630	7,19190	.38610	14300	06170	.38750	53910	00000	.57310	00000		53910
4.960	119.580	7.74770	.57300		.08160	.37250	·.41540	,00000	.56960	00000		-,41540
4.960	111,580	8,25750	.76020	09951. 03		37210	-,27330	00000	. 56640	00000		27330
4.960	109.670	6.42370	.86140	01691. 01	.05240	.37960	20410	,00000	.56470	,00000		20410
4.360	119.620	7,25660	31940			.35680	55530	00000	.57470	.00000		55530
	GRACIENT	-,13914	04000	JO05287	-, 50045	00479	-,03562	. 00000	.00079	. 00000		03062
			•	ट्टट 583 (TAIF	MSC 503 (TAIF) 324 IN. DIA. ET (418 MD) WGRIT	1. ET (418 #	D) WRIT		(R99(146)		(20 MAR 74	_
	ADTRIBUCE CATA	E DATA							PARAMETRIC DATA	DATA		
	.7420 56.	10. IN XMRP	11	3.2590 IN.				BETA ::	000	ï Z	225,000	2
	-		11	.0000 IN.								
	.0270 IN.	246	u	.0000 IN.								
		RUN NO.		34. 0 RN.L =	5.03	GRADIENT INTERVAL ::	1VAL = -5,00/	00' 8'00				
W)	AL PHA	2	3	CYN	COM	é	3	CAB	XPA	683	8	
4.960	149.240	2.75120	09740		. C3820	.12900	-1.11630	00000	. 57690	.00000	6	000
4.960	\$47.530	3.03150	.11150	0.00870	.05080	.15100	-1.09880	.00000	.57610	.00000		099
4.960	143.240	3.67770	.16870	0 .02160	02770	.18550	-1,04160	.00000	.57450	.00000		160
4.960	159,160	4,54390	.25980	0 .02860	.06610	.21290	-,96640	00000	.57210	. 00000		96640
096.	135, 060	5.02450	.33760		01710	.22300	-,87950	,00000	\$7080	. 00000		-, 67950
4.960	131.000	5,66900	.42160	00880. 0	.14250	.26370	-,78850	.00000	. 56950	. 00000		78650
4.960	129,070	5.97790	.44400		0.11970	.27710	74080	00000	. 56950	. 00000		74060
4.960	139.190	4.34660	.13160		00080.	.21250	-,96560	00000	.57720	.00000		96560
	CRADIENT	-, 18542	01842	200224	00446	00694	01892	.00000	. 05039	00000		01892

CATE OS AUG PA

(R99047) (20 MAR 74)

MSFC 563 (TAIF) 324 IN. 01A. ET (418 MOD) W/GRIT

									1		
##CF : 84CF : 84CF : 84CF	. 9720 1N. . 9720	TANG TANG	ri n 10	5.259G IN. .0000 IN.				BETA =	000.	# #	225.000
		RUN NO.	NO. 35/ 0	RAY.	5.02 GRA	GRADIENT INTERVAL = -5.00/ 5.00	RVAL = -5.	00. \$.00			
HACH	ALPHA	5	S. F.	450	CMM	ਵੱ	ర	САВ	XCPA	590	ዷ
4.960	169.640	.56470	42660	.02670	0380	.03220	-1.24780	00000	.71370	00000	-1.24760
4.960	167.750	00199	49050	.02590	02030	.04850	-1,24080	.00000	.71130	00000	-1.24080
4.960	163.690	1.00140	3658 *	.01820	02480	.04870	-1,22380	00000	0.66670	00000	
4.960	159.640	1,36140	-,42010	00800	.01350	.05660	-1.19850	.00000	.63530	.00000	
4.960	155.570	1,66480	24420	.01630	.05360	.08200	-1.17620	.00500	.60500	,0000	
4.960	151.520	2.49570	06690*-	.01240	.05260	.16300	-1,14660	00000	.58730	00000	
4.960	149,560	2,78310	-,13570	.01690	.03860	.13520	-1,12760	00000.	59090	. 60000	-1.12760
4.960	159.640	1.36210	44620	00800	.01370	.05660	-1.20270	.00000	.63850	00000.	-1.20270
	CRADIENT	-,11133	•• 02000	.00059	00447	-,00573	00591	.00000	.00680	00000	
			Ž.	Ses (TAIF)	MSPC 383 (TAIF) 324 IN. DIA. ET (418 MOD) WGRIT	. ET (41B M	E E E E E E E E E E E E E E E E E E E		(R99048)		(20 HAR 74)
	REFERENCE DATA	E DATA						_	PARANETRIC DATA	DATA	
*	.7420 39.	30. IN XHRP		3.2590 IN.				BETA ::	000	ï	225,000
LACE			u	.0000 IN.							
BACK .			#1	.0000 IN.							
		SU NO.	NO. 36/ 0	a Za	5.01 GRA	GRADIENT INTERVAL =	IVAL = -5.00/	00/ 8.00			
¥0≸	AL PHA	\$	3	¥	#E	ਵੱ	ర	CAB	XPA	CP01	Ä
4.960	169,600	-,39950	.24680	.07240	-, 06660	-, 00060	-1,17150	.00000	09069	00000	7
4.960	167.690	-,28970	19510	06650.	04970	00780	-1.18270	. 00000	69940	. 00000	
4.960	163,640	-,11000	00290	.06400	01850	01020	-1.20610	, 65560	.68820	. 00000	
4.960	179,610	.05630	-, 12350	05730	00830	0.0000	-1.22360	.00000	. 96290	. 50000	
4.960	179.760	26320	29160	.05660	01920	02200	-1.23690	. 65559	.76840	00000	
4.960	171.760	.41520	44470	.04500	00680	03860	-1,24580	00200.	.76850	. 00000	-1.24580
4.960	169,640	. 53610	46130	.04400	-, 02610	.03750	-1,24370	. 66859	73140	. 00000	
4.960	179.620	. 04240	-, 12230	.05220	03180	00300	-1.22610	. 06668	1,08250	.00000	
	CAADIENT	- 2573	. 03773	.05120	~. 50135	-,00228	.00376	20020.	-, 00356	.00000	

MSFC 363 (TAIF) 324 IN. DIA. ET (418 MOD) WGRIT

TABLLATED SOURCE DATA, HISTO THE SOS

DATE GS AUG 74

1407 : 1407 : 8407 :

PAGE 39

270,000 (R99049) (EU MAR 74) PARAMETRIC DATA .000 PM1 BETA 3.2990 IN. .0000 IN. THE P REFERENCE CAYA .9720 IN. .9720 IN. .9720 IN.

62980 62980 61200 62890 63890 63890 62760 60000 60000 60000 60000 60000 60000 60000 60000 35170 35170 35170 35180 35290 35290 35290 35290 CAB .09670 .08140 .07490 .07950 .09580 .10200 6.96 GRADIENT INTERVAL = -5.00/ 5.00 CA 74160 .72050 .69340 .69580 .72620 .72970 .68210 CBL .02840 .02300 .02300 .00330 .00470 ..01500 ...01500 ...02650 ...03880 ...05620 ...05620 .11170 .10380 .11110 .12390 .1150 .1150 .11210 .12270 RUN NO. 148/ 0 RN/L E CYM
-.14630
-.11350
-.08570
-.08340
-.08340
-.08050
-.08050
-.08250
-.08250 CLMH
-1.03500
-.84740
-.42560
.03540
.52060
.94720
11.12650
.04330 CN# -10,100 -0,100 -3,930 4,995 6,540 10,540 CRADIENT

6.34 GRADIENT INTERVAL = -5.00/ 5.00

₹ ₹

50770 50770 51010 51190 51190 51190 51170 CF81 00000 00000 00000 00000 00000 36540 36540 36540 32440 41700 36920 36920 36920 36920 04840 .04840 .04880 .04880 .04880 .04880 .04880 4.97 GRADIENT INTERVAL = -5.00/ 5.00 CBL -.03100 -.02660 -.01660 -.00280 .00210 .01070 .01070 .02110 .02110 .02110 .00155 CYAH - 07410 - 07990 - 07946 - 07990 - 06900 - 06900 - 06900 - 06600 - 06600 - 06600 - 06600 - 06600 - 06600 - 06600 - 075000 - 075 .05260 .05260 .05290 .04910 .05250 .08240 .09900 RM/L == RUN NO. 22/ 0 .75770 -,56800 -,24900 .02860 .61830 .62010 .200 4.320 6.400 10.360 .200 ALPKA -9.940 -0.010 TOTAL STATE OF THE STATE OF THE

000000 XCPAL 36120 35640 35640 37650 37650 37650 648 02837 02837 02837 02830 02830 02830 02830 02830 47370 47370 47000 47000 47170 48660 47460 CBI.
- 03530
- 03150
- 00360
- 00490
- 00190
- 00180
- 00550
- 00650 .01220 .01230 .00370 .00370 .00370 .00310 .00310 CVM 000288 000288 000288 000288 000288 000288 00029 000288 000288 ALPHA - 9.810 - 7.890 - 3.830 4.860 6.280 10.200 10.200 12 4.960 4.960 4.960 4.960 4.960 4.960

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MSFC 363 (TAIF) 324 IN. DIA. ET (418 MCD) W/GRIT

(R99050) (20 MAR 74)

Pd.	.7420 34.	IN SORE		1.2590 IN.				BETA =	000	H		270,000
b	.9720 IN.		94	.0000 IN.								
מינו אניוני :	. 9720 IN.		ÇM	0000 IN.								
		AUN NO.	NO. 1397 0	RAY.	6.96 GRA	GRADIENT INTERVAL =	VAL = -5.00/	00'\$ /0				
# CH	ALPHA	*	S	Š	TAN D	ව්	ಶ	CAB	XCPA	90		å
1.933	10,610	.64320	1.11290	07060	14550	04080	.72650	.10370	35320	00	900	.6224
1.953	12.620	1.09640	1.25950	09640.	12980	04890	73040	.11020	38330	00.	000	6203
1.953	17.060	1,72900	1,95790	0.05630	02770	06300	.72560	.12240	42590	00.	200	6032
1.933	21,360	2,41465	1.89690	01480	07850	CASEC	72840	12770	.44600	000	100	600
1.933	25,700	3.21850	2.32040	.02520	.05210	11880	75240	13410	45720	200	300	618
1.933	29.950	3,93210	2,62190	06960	05620	14040	71960	13320	46660	000	000	386
1.953	31.990	4.29450	2,76920	07930	04800	-,15570	.71260	13540	47040	000	300	577
1.953	21,320	2,41490	1.87530	01180	.07240	66310	.71810	12740	44760	000	300	000
	CRADIENT	.1672	.07961	.00762	-, 00455	00549	00030	.00143	.00511	.00000	800	60173
						TWANTED INTO THE	700 °C - 744					
Į	ALPHA	ĭ	¥,	£	CYN	ළ්	J	CAB	χ ζ	28.5		å
3.47	10.650	.80820	.93860	11700	-,05310	.01630	. 56440	.04880	38070	000	90	,515,
2.47	12.590	01466.	1.08290	.13330	-, 05000	. 62630	.56650	.04630	39380	.0000	900	.51610
2.47	16.730	1.43710	1.39200	14940	01370	.03640	.57470	.04710	,41420	.000	000	. 9279
2.13	20.860	1.09510	1.67980	.16520	.00300	2.3	.58940	.04900	.42890	. 000	000	.541
£ 7.0	25,020	2,43130	1.89620	.16920	. C. 160	.06030	.60870	,04980	.44700	.00°	000	. 5565
27.0	29.140	3.00000	2.11890	.16069	.05280	.07040	.62540	.04980	.46010	300.	800	. 575
2.47	31.120	3.30270	2.23380	.15510	.06320	.08460	.63530	09060	.46500	. 600	90	.584
2.4	20.860	1.90040	1.67770	.16280	.00840	.05070	. 59030	.04830	.42910	300.	000	. 541
	CA AD I ENT	.12159	.06280	.00183	.00585	.06305	.00356	.00012	.00406	000	900	.003
		ACK NO.	D 197 0	RN7.	4.95 GRAC	DIENT INTERN	GRADIENT INTERVAL # -5,007 5,00	90'5 /				
#U#	ALPHA	3	₩. O	CYM	CYNE	ě	ð	CAB	XPA	C.89.		8
1.960	10.500	. 72340	. 63760	00110.	00950	.00500	.48770	08820.	.36130	.000	000	464
1.960	12,400	.86050	.94560	.08920	00450	.00480	.49330	. 52370	.36350	000	00	469
1.960	16.470	1,25600	1.25300	.16920	06810.	.02340	.50850	. 62390	45940	.000	90	1484
1.960	20, 320	1.68020	1.46540	.11610	01150.	.04310	. \$2360	.02360	42890	000.	000	4995
1.960	24.600	2.19670	1.64430	.13290	. 55560	.05460	.55130	.02450	.45240	000	900	. 5266
1.960	26.640	2,75460	1.63280	.13590	06060"	. 05830	. 56940	. 52420	46690	000.	100	.3451
4.960	30.570	3.05400	1.92630	.13610	0110	00120.	.58469	. 62370	47260	. 00000	001	.56080
1.960	20.510	1.65240	1.46660	111170	.02670	.04130	.52390	. 62420	.42835	000'	100	499

			Age.	C 563 (TAIF)	MAFC 503 (TAIF) 324 IN. DIA. ET (418 MCD) WIGHT	1. ET (418 M	CD) WCRIT		(R99031)		(20 MAR 74)
	ADTAENTE DATA	CE DATA							PARAMETRIC DATA	: DAYA	•
· La	.7420 SA. IN	IN MARIE		5.2590 IN.				SETA .	600	170	600 000
LACF &	.9720 IN.		#	.0000 IN.				5	200		20.00
BACK :	. 5080 IN.	ZNEP	Ħ	.0000 IN.							
		S	RUN NO. 1047 0	RKL =	7.01 GRA	GRADIENT INTERVAL =		-5.00, 5.00			
NO N	ALPNA	3	£	CYN	300	ŧ	2	85	30	•	3
. 24		6.26040	3.64690	.12430	.27160	57171	.55230	00000	47570		W. 68.8
3.948		6.50530	3,91010	12600	.28070	.18310	54600	00000	47850	. 0000	
1.948	57,250	7,62530	4.03550	.12740	.28710	.19220	. 52940	00000	46220	0000	
1.948		7.45370	3,86250	.12750	.26780	.20560	.56300	00000	49160	0000	00596
1.94		7,79670	3.62540	.10950	.27750	.21260	.52440	.00000	49720	0000	
1.94	69.360	8.11310	3.72780	13190	.20140	.22050	.43630	00000	.50260	00000	
1.948	71.270	6.22710	3.65010	13510	,16560	.22790	.36530	00000	30340	0000	
1.968	61.240	7.23770	3.73970	.12570	.28050	.19890	.57860	.00000	.49270	00000	
	CRAC! ENT	.09626	01196	.00023	00476	09200	-,00766	.00000	.00183	00000	-,00766
		RUN NO.	NO. 77/ 0	RNZ "	6.27 GRAD	DIENT INTER	GRADIENT INTERVAL = -5.00/ 5.00	00'8 /0			
HOW	ALPHA	Š	CLAN	£	CYNE	_ව	đ	CAB	X O	ğ	ş
2.13	30.776	3.61220	3.07090	.16170	.11190	.16750	.61450	00000	49070	מטטט	
2.17	52.690	0.06700	3,10530	.16880	.12480	.15350	.61000	00000	49350	00000	
2.13	56.740	6.59400	3.14130	,17500	.13170	.16680	.99250	00000	49970	00000	
2.43	60.790	7,12290	3,51430	.16880	.16550	16590	.54960	.00000	,50160	00000	
£4.0	64.630	7.55620	3.36300	.17660	.15780	.19330	. 51050	. 60000	.50510	. 00000	.51050
£ !	66.860	7.92260	3,41130	.18400	.16160	.20670	.46070	. 00000	. \$0770	.00000	
	70,770	7 00610	3.36810	19220	.14200	.21020	42790	. 66000	06605.	.00000	
	CRACIENT	.11403	.01746	.00119	.00194	.00266	06086	00000	50070	00000	. 55630
		ALM NO.	NO. 78/ 0	RNY.	4.98 GRAD	GRADIENT INTERVAL :	WL = -5,00/				
MACH	AL PHA	3	¥	Š	S. C.	ē	đ	87	Ş	Ş	•
4.960		5.66500	2,76250	19050	11600	13410	.62110	00000	49770		3
4.960		\$,92290	2.81560	.18050	09840	.14460	.61050	00000	06864	00000	01120.
4.960	36,320	0.48200	2.91600	.19610	.13510	.15930	. 59260	.00000	06006	00000	CACOR.
4.960	60.340	6.98140	3.01710	.17680	.12760	.16570	.55430	. 00000	. 50740	.0000	0848
4.960	2000	7,41530	3.16470	.20250	14190	.17790	49450	. 65669	. 50830	00000	49450
7.960	69.370	7,79370	3.17160	.20460	.18200	.18250	.43400	. 00000	.51100	20000	43400
4.460	282.07	7,95620	5.20670	.20500	.12640	.18320	.39450	. 55550	. 51240	. 00000	39480
4.960	60,340	6.96830	3.04570	18290	.15210	.16750	. 55590	.00000	. 50650	.00000	35390
	CARACIENT	26611.	. 62362	.00100	.0000	. 65241	6113G	02020	34000.	.00000	01130

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10.00 mm. 10.00

1.944 1.944 1.944 1.944 1.944 1.944 1.944 1.944 1.944

		×	C SES (TATE	324 IN. (MSFC 385 (TAIF) 324 IN. DIA. ET (418 MOD) W/GRIT	- WCRIT		(499053)	4 20 MAR 74	IAR 74 >
KE DATA								PARAMETRIC DATA	7	
좆		en H	3.2590 IN.				BETA =	. 000 PHI	u ==	270,000
¥ ¥	THE P		.0000 IN.							
2	S NO	0 /501 >	O RML =	6.9	GRADIENT INTERVAL =	AL = -5.00/	00.5 /			
		¥	CYN	CAMP	é	5	CAB	ЖРЛ	2	£
3.72910		62040	13000			68420	.00000	.60130	.00000	-,66420
3.95810		51460	14390			01679	00000	. 59760	00000	64910
6.90430		-,37710	18470			01196	00000	06286	00000	01106.
7.02700		11960	21380	Ureau	01122.	0000	nonno.	0.0000	2000	00000
7.43680		19880				Dace.	00000	47060	ממטים.	00000
02260		73400	21710			10610	00000	56640	00000	10010
6.65410		05490	20630	•		47280	00000	.56390	00000	-,47260
.11391	·	06668	.00464		•	-,02837	00000	.00172	00000	02837
æ	RUN NO.	77.0		22.0	GRADIENT INTERVAL = -5.00/	10°5- 11√18			į	
			00770	10000	101.	- TOTO	DOUGH TO THE	Rober		10000
3.54650	Ī	17590	03660			66680	00000	09786	00000	.66680
5.15000	•	04870	04300			-,56200	00000	.56360	00000	56200
5.65020		10190	05460	-, 00300		46170	00000	.57980	.00000	46170
7,11620		.38250	05320	06600.	.24400	-,37030	00000	.57310	00000	37030
7.54640		64430	06370	01040		26030	00000.	.56760	00000	26030
7.71680		. 80810	06750	-,01110		20550	,00000	. 56430	.00000	-,20550
6.64410		10230	05200	503.80		46590	00000	.57980	00000	46590
-,11697	-	-, 65214	.00162	-,00116		-, 02496	.00000	. 00129	.00000	02496
3	RE NO.	70/0	D RN/L =	4.89	GRADIENT INTERVAL =	AL = -5.00/	00'6 /			
		£10	Š	W.	ව්	5	CAB	አ የየሊ	6	£
5.43420		.02960	00540	, CC 270		71880	.00000	.58150	.00000	71660
5.67950		05110.	00760	06040.	•	67160	.00000	.56210	00000	67160
6.26190		.23160	01720	.05800	1.22320	57350	.00000	.57600	.00000	-,57350
6.76360		.33450	- 02620 -	.05880		-,46720	00000	57390	.00000	46720
7,12640		. 52080	02920	.07590		-,36670	. 60000	. 56980	.00000	36070
7.70780		.96030	-, 05020			24790	00000.	. 56080	00000	24790
7.68330		02820	-,05700			18110	.00000	. 55980	. 00000	18110
6.69460		.39620	04230	. Re10		46690	00000	. 57320	. 00000	45660
10074		05207	1200		- CL240	1 02672	CCCCC			40104

WGRIT
8
ET (418
DIA.
ż
324
(TAIF)
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SFC

1 (4:0 MON		(899054)	S HAR 74
	PAR	AMETRIC DATA	<u> </u>
	T (4:0 *0:1)	Ϋ́	I. DIA. ET(416 MOD) W/GRIT (R99034) PARAMETRIC DATA

	. 9720 1M. . 9720 1M. . 9720 1M.	ž	2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	ca it as	* 5 5	3.2590 IN. .0000 IN.				BETA	(1	000	IH.		£70, 000
			S N		123/ 0	RNA :	6.69	GRADIENT INTERVAL =	ERVAL = -5.	-5.00, 5.	9.00				
HO#	AFPIA	3		ರ	S.	Š	CYN	ਵੱ	ర	2	-	X.P.A.	CFB1	-	ğ
1.963	148.020	3.69050	080	7	.58380	.19850	.08920	0 ,12060	1.12200		00000	06609.	00.	00000	-1,12200
1.965	145,990	3.99420	420		53600	.16590	01190	01021. 0			00000	.60580	8	00000	-1,09690
1.965	141.730	4.67430	430	4.	44160	.06610	-,13540	06671. 0	1.03630		.00000	59890	8	00000	-1,03630
1.965	137.450	5.36370	370	;	34630	01840	18840				00000	. 59370	00.	.00000	96630
1.965	133,160	6.05650	650	1	26720	-,06660	17340	0 19290			00000	. 59010	8	00000	-,87410
1.965	126,990	6.57660	099		21530	67170	-,11160	07612. 0		30.	00000	.58810	00.	00000	-,75940
1.965	127,000	6.78450	450	4.2	24880	-,06960	-,10510	0 ,22050	70460	ο.	00000	.58880	00.	00000	70480
1.965	137,520	5.28670	670	L	-,38730	-,03369	-, 18150	0 ,16650	96060	Ö.	20000	.59520	00,	00000	96060
	CRADIENT	-,15020	020	1	01740	.01345	.00596	96700 9		30.	00000	.00102	8	00000	01976
			RE NO.	ó	33/ 0	A	6.36	GRADIENT INT	6.36 GRADIENT INTERVAL = -5.00/ 5.00	.00/ 5.	00				
HOW	AL PHA	Ş		ರ	¥.0	C A	2	ਵੱ	ð	CAB		X Y	CP81		Ä
3.479	148.740	2,95200	002		.38480	. De340	08080	0 .11360	ī	00.	00000	.60510	0	00000	-1.67820
3.479	146.790	3.24550	550		55480	.01360	09510	0 .12740		00.	,00000	.60140	00	00000	-1,05290
8.479	142.650	3.65970	070		-,30420	.01160	07700	14370		3.	00000	\$9610	80.	00000	99080
5.479	138.430	4.50420	150	e,	25130	007490	06870	0 .16330		ş	.00550	. 59210	8	00000	91670
2.47	134,250	5.12410	110	*	17720	, 00080	66980				00000.	.58850	90.	00000	83090
8.47	130,120	5.71970	Š	Ċ	-,08760	00310	06930			•	00000	.58510	90.	00000	73960
3.47	126.150	5.98710	10	9	04130	00250	06120	21070		•	00000	.58360	00.	00000	-,69410
27.5	136.440	4.49220	320		26100	.00760	07210			•	00000	. 59250	.00	00000	91250
	CRADIENT	14813	213	0	01631	.60171	-,00118	3 00465	01875	.00	,00500	.00101	.00	00000	01675
			Š Š	ó	32/ 0	RNZ	4.97	GRADIENT INTERVAL :	ERVAL = -5.	-5.00/ 5.00	23				
HO M	AL PHA	Ž		3	CLAM	CAH	CYN	ਭੁੰ	ð	CAB		XPX	CP81		8
4.960	149.250	2,59060	090		21240	04870	04590	06101. 0	-1.05070	90.	00000	. 5967G	00000	000	-1.05070
4.960	147.340	2.87600	00	÷	16100	04150	05710	00021.	-1.02720	35.	20025.	. 59220	100	00000	-1.02720
4.960	143.250	3.47450	30		09860	.03740	-, 04480	0 .14769	97660	S,	00000	.58740	90.	00000	97060
4.960	139,180	4.07260	00	ģ	06320	.02770	03690	16390		5	02020	.58510	00000	000	69980
4.960	135.000	4.72650	30	0	.01750	. 52310	61870	16770	82030	3.	00000	. 58180	00.	00000	62030
4,960	131.630	5.32200	00	-	10590	.61960	63210		72760	20.	00000	. 57900	.001	00000	-,72760
4.960	129,100	5.61010	0	=	12020	02520	. 03610			8	05550	. 57870	50	00000	.66950
4.960	139.100	4.07350	90	-	10160	.03340	-,03200			20.	00000	. 58680	00.	00000	-, 69660
	CRACIENT	15021	21		01626	60503	65313	1 05424	01613	00.	00000	ARCDO.	00000	200	A14.4

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DATE OS AUG 74	AUG 74			TABLE	ATED SC	JARCE (TABULATED SCURCE DATA, MSFC TWF 363	C TWF 563					PACE	4
				¥	C 563 (1	TAIF) 3	24 IN. DE	A. ET (418	MSFC Ses (TAIF) 324 IN. DIA. ET (418 MOD) WGRIT		(R\$9055)		(20 MAR 74	72 1
	ROTER	ROTERENCE DATA									PARAMETRIC DATA	DATA		
BAEF .	.7420 89.	2	9.00	**	25.000 12	_								
LRET .	.9720 IN.		WARD IN	•	0000					BETA =	000	Ē	~	£70.000
BACF	.9720 IN.		2 434Z		0000 1%	4								
BCALE &	.0030					<u>:</u>								
		ă	RUN NO. 122/ 0	1221	O RWA. "		5.69 GRA	DIENT INTE	6.88 GRADIENT INTERVAL = -5.00/ 5.00	90' 8'00				
HYCH	ALPHA	3	Ū	T. C	Ç		Critical	Ē	3	970	,	į		
1.953	169.330	.76360		.67440	10750	750	03220	04300	THE PRESC	2000	XPA			£
1.953	167.340	.99020		68830	.15510	510	.07360	05050		מממטים.	Dece.	00000		-1.28530
1,953	163.110	1.54760		67930	.25330	330	.14920	04170	-1.27630	00000	64870	00000		-1.86880
200.1	158.640	2.16660		68110	.29170	170	15190	.08150	-1.25500	00000	64710			05025
909.	154.530	8. 854 DO		70030	.32220	i,	.12610	.10250	-1,23950	00000	62816			7,6000
664.1	150.340	3.44640		64570	.28720	20	.08020	.11430	-1.16470	00000	61500			000000
968.	148.300	3.78690		61900	.26800	00	.05260	.12300	-1.13750	00000	61040			2 101 1
966.2	156,690	2,13590		64410	.27310	110	.13540	00090°	-1.23210	00000	61480			00/01.1
	CRACIENT	14491) * L	00212	00771	7.	-,00042	00381	00688	00000	.00549	00000	-	-3.63610
		78	RUN NO.	30/ 0	RIV.		6.35 GRAE	GRADIENT INTERVAL =	RVAL = -5,007	00.8 700				
MACH	ALPHA	2	ರ	4	Ž		744	ē	į					
2.47	169,529	.62610	9.	47540	. BA740	5	05160	200	4	CAG	XAPA	Ē		ž
2.479	167,590	.78510	4.	49210	04940		2001	09400	1,24580	00000	.71430	. 00000	٠	-1.84580
3.479	163.470	1,15170	*	54900	12040		02310	0,440	00000	00000	.69130	. 00000	•	-1.24120
8.478	159,350	1.57200	45	56640	12040	•	Der Gi	Deese.	7.00190	nonno.	.66530	. 00000	Ī	1.22190
8.47	155,200	2.07010	10	51940	10500		- Octabl	0.000	-1.19460	00000	64500	.00000		-1.19460
5.479	151,080	2.61030	4	45430	07630		DE94D	10880	01661.5-	00000	.62600	. 00000	•	-1.15510
3.479	149,100	2.90790	1.1	41380	0.50		07010	11080	00000	ספסס.	.61270	00000	•	-1.10930
5.479	159,350	1.56610		57150	.12570		-, 02540	00690	-1.19450	משטים.	02/00.	00000	-	1,06730
	CACION	11127	5	00282	.00130	2	.00264	00372	00788	.00000	.00502	00000		00768
		3	SUN NO.	31/ 0	RNA. #		OS GRAD	IONT INTER	5.03 GRADIENT INTERVAL = -3.00/ 5.00	3/ 5.00				
W CH	A.P.A.	3	70	¥	Ž		CYNE	ē	i					
4.960	169.630	.48730	4	47000	.06850		07750	04700	13 986 E.	20000	XCPAL	Ē		£
4.960	167.750	.63800	52	52690	.08380	ĺ	03170	04420	1 24500	00000	1000	00000	•	-1.23150
4.960	163.690	,96330	56	58510	.09950		04250	07160.	-1.21950	מטטט.	0000	00000	•	1.23320
4.960	159.640	1.31710	60860	980	.09210	٠	66590	06450	-1.19240	00000	04699	ימסחסח.	_	1.21900
4.960	155.570	1.61970	\$1000	000	.08340	•	07740	.08840	-1.1588G	מטטטט .		00000		1,19240
4.960	151,520	£.35040	46710	1710	.07530		-,11390	09160	-1.11260	00000	00000	90000		-1.15860
4.960	149.590	2.64910	45560	360	.06700	Ĭ	08700	.08280	-1.09240	00000	0.019	משמחה.		-1.91260
4.960	159.640	1.31730	63460	160	.10390	·	07550	07770.	15.19130	00000	0.444	3000	-	1.09240
	CAACIENT	10635	00256	256	.00041		.00247	00209	00716	00000	0.000	2000	•	1.19150
										} 	-	7777		00716

PAGE 44

			!			The second secon					
	ROTCREM	ENCE DATA							PARAMETRIC DATA	DATA	•
SACF = LACF = BACF = SCALE =	.7480 58. .9720 IN. .9720 IN.	IN MARP	10 16 EF	3.2590 IN. .0000 IN. .0000 IN.				BETA =	000.	#	270,600
		A.S.	RUM NO. 121/ 0	BEN :	6.85 GR	GRADIENT INTERVAL =		-5.00/ 5.00			
¥	AL PHA	3	T d	Y.	A WO	g	3	CAB	KGPA	689	Ja
1.956		67860	.55680	01920	01160	02480	-1.27460	00000	.72500	. 55000	-1.27460
1.956		-,48640	.48050	.06140	01640	02110	-1.26370	00000	.75410	.00000	-1.26370
1.936		21440	01172.	0.03940	03220	00720	-1.27980	00000	.77770	. 00000	-1.27980
1.956	179,620	. 00440	05520	.03370	05230	.00340	-1.27500	.00000	2,75050	00000	-1.27500
1.956	175.640	.23180	~,35200	.04460	03650	.01990	-1.28030	.00000	.84620	. 00000	-1.26030
1.956	171.520	.54740	61930	06880.	02570	.03370	-1,29610	.00000	00677.	00000	-1,29610
1.956	169.520	.73660	-,70300	13110	.01560	.03930	-1,29600	00000	.74780	. 00000	-1.29600
926	179,820	00030	05730	04090	04380	.00260	-1.24800	.00000	00000	. 00000	-1.24800
	CAACIENT	-, 56521	1070	00213	-, 00049	~.00320	.00126	.00000	00185	.00000	.00128
¥.	ALPHA	3	3	Š	7	Ē	3	95	Š	Ş	į
3.479	189,910	53670	.34920	08330	04350	02440	1 24740	00000	2000		1
3,479	187.980	40820	.29630	,07250	-,05340	01570	-1.24480	ייייייייייייייייייייייייייייייייייייייי	חשפחר	00000	20075
3.479	163,690	17480	.15990	.06620	05030	00280	*1.25340	00000	74140	מטטט.	CARRO 01
3.479	179,820	,05420	05500	.05550	G649G	00900	-1,25090	00000	2.84400	00000	1 25000
3.479	175.720	.21450	25730	ე699ე*	-, 04430	.01010	-1.25830	.00000	79080	00000	-1.25830
2.43	171.660	46690	41390	.08870	C3870	, 02050	-1.25490	.00000	.73640	00000	-1.25490
3.470	169.710	.61419	-,46330	, 09820	-,03850	. 53360	-1.25170	.00000	.71350	.00000	-1.25170
3.479	179.620	.02460	07820	.05810	-, 06260	.05620	-1.25340	,00500	3,50510	.00000	-1.25540
	CRACI ENT	. 65493	, 04238	00077	00051	00252	99000.	. 00000	60157	.00000	.00066
		RUN NO.	ND. 28/ 0	RACL II	5.02 GRAD	GRADIENT INTERVAL =	VAL = -5,00/	00'8 /0			
MACH	ALPHA	ž	£ 33	CYN	CYN	GP	ర	CAB	XPA	92	ğ
4.960	169.600	-,35930	.35630	.07730	05040	55780	-1,19120	. 00000	.75570	00000	-1.19126
4.960	167,690	-,29050	.29740	.08190	02010	02760	-1,19850	, 00000	.76060	. 00000	1.19850
4.950	163.640	-,07030	.18920	.07530	02960	-,00939	-1.21040	. 00000	1,04960	00000	-1.21040
4.960	179,610	.12270	.00800	.06870	-, 03220	65310	-1.21170	.00000	.57110	. 00000	-1.21170
4.960	375.780	.36250	17170	06570.	@840	. 00930	-1.21650	00000	.68100	. 00000	-1.21600
960	171.750	. 49540	51360	.08420	62770	. 92650	-1.21130	.00000	.69250	.00000	-1.21130
4.960	169.630	.65550	- 38040	. 09500	02430	.03170	-1,20390	00000	.69160	.00000	-1.20390
4.960	179.810	12280	01980	08080	05400	. 66470	-1.21440	.00000	. 55430	. 00000	-1.21440
	CRADIENT	-, 04825	.03800	00052	asa 43	05249	07000.	, 65650	. 55739	. 00000	. 66670

1 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	ADTACK		3	MSC 583 (TAIF) 324 IN. DIA. ET (418 HOD) 14/681T	324 fu. 01/	FY (418 M	O1 12/C017		(R99057)	57) (20 HAR	HAR 74)
LACT	ADTEACH										
1407 :		CHCE DATA							PARAMETRIC DATA	C DATA	
SCALE "	.7420 89. .9720 IN. .9720 IN.	N YARP	* # # #	3.2590 IN. .0000 IN.				BETA =	900.	H H	318.000
		RUN NO.	NO. 23/ 9	RNA.	4.96 GRA	CRADIENT INTERVAL =	VAL = -5.00/	00' 2'00			
MACH	ALPHA	3	CLM	CYN	X OLD	형	5	873	KPA	CFBî	£
0.960	-9.610	66310	69110	04160	00600	50410	.50030	.02400	.40140	. 60000	. 47650
4.960	-3.630	25120	- 28570	G\$24B	0.5000	. 02140	49170	08290	18490	00000	
4.960	190	0.0309	06220.	03910	02200	00430	45770	02160	99610	00000	
4.960	4.250	.21690	38950	.04670	09200	.00250	.45830	.02060	27060	00000	
4.960	8.270	.47810	.68930	.04190	.00370	06100.	.45920	.02240	.33200	.00000	
4.960	10,200	,65650	.85340	04320	.01780	.00870	.46650	.02240	.35670	, 00000	.44410
4.960	.290	.02350	.06310	.05120	.00860	00330	.46240	.02190	12900	.00000	
	CRADIENT	.05794	.06355	00103	.00209	.00296	0D413	05027	-,01442	.00000	•
			HEFC	Ses (TAIF)	MSFC 583 (TAIF) 324 IN. DIA, ET (418 MOD) WGAIT	. ET (418 MC	WGRIT		(R99056)		(20 MAR 74)
			MSFC	563 (TAIF)	324 IN. DIA	. ET (418 MC	* SELT		R9905		-AR 74 .
	REPERENCE DATA	E DATA						_	PARAMETRIC DATA	DATA	
BACT	.7420 54.	IN X462P	ıř	3.2590 IN.				BETA =	000	Æ	315,000
LAGF .	.9720 IN.	YHERD	4	.0000 IN.							
	.9720 IN.	ZHE	10	.0000 IN.							
State a	2000										
		RUN NO.	NO. 24/ 0	RNA =	4.97 GRA	GRADIENT INTERVAL	/VL = -5,00/	00'\$ /01			
MOVA	ALPHA	Š	20	HA.	T C	é	ð	87	XPA APA	<u>e</u>	8
4.960	10.490	.62950	.85970	0,000	.0320	00220	46990	.02280	.34520	.00000	.44710
4.965	12.390	. 79400	1,01,00	.05570	.0380	.00360	.47070	.02280	36060	. 00000	.44780
4.960	16.450	1.12210	1,84540	06310	08620.	00260	47940	,02270	38970	.00000	.45660
4.960	20.500	1.53150	1,48310	.07660	. 01590	. 60700	.49230	.02260	.41420	. 00000	
4.960	24.580	2.02190	1.67450	.06550	.02210	02400.	.51030	.02340	.43860	00000.	48690
4.960	28.620	2.53980	1.67220	07770	.03230	.01430	. 52390	.02420	.4544	00000	
4.960	30.550	2.82600	1.98420	.07360	. 02140	.01360	53190	.02430	.46050	. 00000	.50750
4.960	£0.550	1.53130	1.48300	. 08220	.01460	. ენ660	.49230	.02390	.41420	.00000	.46830
_	GRADIENT	.10892	.05461	. 00110	00049	.00078	.00322	.00008	. 66576	. 00000	

:3

	RETEREN	RENCE DATA	ATA								PARAMETRIC DATA	DATA		
BACF A LACF B BACF S SKALE R	.9720 1N. .9720 1N.	3	THE PARTY STATES	48 48 48	25.6 20.00	9,2590 IN. .0000 IN. .0000 IN.				BETA &	000.	#	315.000	000
			RUN NO.		73/ 0	FIV.	£.9.	GRADIENT INTERVAL =		-5.00, 5.00				
104	A PHA	Ū	3	J	Ŧ	£	CYN	ළ්	5	CV8	XFA	<u>19</u>	Ü	¥
4.960	50,370	20	9.32660	2.88560	1360	12320	.01130	.02300	.57260	00000	.48840	0000		57260
4.960	52,280	*	3.55990	200	2,94370	.15840	-,00290	.01480	.53920	00000	.49050	00000		.53920
4.960	36.310	•	6,10420	30.8	3,08010	.13470	.04240	.02580	.51620	.00000	.49480	00000.		5182
4.960	65,330		6.59150	3.14	3,14060	.16510	02600 -	.02630	.30110	00000	.49970	.0000		5011
960	54.370		7.06570	3,21450	1450	.18560	.00570	.02720	.45880	00000	. 50340	.0000		6588
4.960	68.360		7.44440	3,25980	1980	.19930	05370	.03800	39740	00000.	. 50640	.00000		.39740
4.963	70.270		7,59290	3.27	3.27360	19920	04860	.02280	.35820	00000.	. 50760	. 00000		2885
4.980	60,330	9	6.57870	3,15650	5650	14870	02540	.02950	06005.	.00000	49910	. 00000		5003
	GRADIENT	•	,11551	.0	.01931	.00359	05208	.00053	00976	.00000	86000.	. 00000	٠	92600.
					KSF.C	563 (TA1F)	324 IN. DI.	MSFC 563 (TAIF) 324 IN, DIA, ET (418 MOD) WGRIT	D) WGRIT		(R99D 6 0)		(20 MAR 74	~
	REFEREN	NEWCE DATA	ATA								PARAMETRIC DATA	DATA		
and	.9720 IN.	ğ <u>z</u> <u>z</u>	X4GP YHRP ZORP	A 0 4	3.2390	3.2590 IN. .0000 IN.				BETA =	000.	" Ē	315,000	99

		S N	No. 72, 0	RN-L =	4.92 GRA	RADIENT INTERVAL	VAL = -5.00/	5.00			
.	A PHA	3	3	CYH	2	_{ල්}	ర	CAB	XFPA	CFB1	ŝ
9	60,530	8,12780	3.11650	.23130	-,05130	.04580	.20260	00000	.51580	.00000	.2020
. 960	62,430	8.22110	3,02410	.22150	02380	.03740	13950	00000	.51860	. 00000	.13950
0	96.420	6.35130	2,86550	.23760	-, 10640	.03070	04340	,00000	,52260	. 00000	-, 0434
9	99.420	8.32990	2,63710	.29230	19860	.02170	27410	. 00000	.52750	. 00000	-,2741
9	94.430	6.41630	2.21340	.31060	-,19370	.03450	47690	.00000	. 53660	00000	4769
09	96.400	6.37509	1,85120	,28380	-,13900	.04140	63040	.00000	.54400	00000	63 C4
0	100,290	6.32620	1,70110	29520	-,13010	.04210	-,70750	00000	.54700	,00000	7075
CO	90,420	0.32680	2.58510	.30920	20310	. 02659	-,27500	.00000	. 52650	. 00000	2750
,	CAACIENT	29630	07316	.00401	00378	. 0000	04757	.00200	.00160	. 00000	6475

#GET # .7420 \$6 LREF # .9720 16 BREF # .9720 16 #CALE # .9520 84 #CALE # .7420 84	CN4 114. 114. 114. CN4 4.535 6.5511 7.2435 7.4181 7.4181 6.556 6.556 7.1825 7.1	CLINM CLINM CLINM CLINM .0439 .0967 .3921 .7663 .7663 .7663 .7663 .3426 .3426	3,2390 IN. -0000 IN. -1250 .0039066650 -1250 .0776064480 -12700 .0776064480 -15700 .0776064480 -15700 .0917064690 -0651018770 .098046500 -065101870 .0917024690 -0651023310 .1131024690 -0651023310 .1131024690 -0651023310 .1131024690 -0651017920 .092046160	4.91 GRA 4.91 GRA125501277018770187701877018770	GRADIEM INTRIAL =	30) WG811	85778 **	(R99061) Parametric Data	3	MAR 74)
TT E E E E E E E E E E E E E E E E E E	COMP.	77 74 10194	.2390 IN0000 IN0000 IN0000 IN0000 IN0960 .0960 .0960 .0960 .0960 .0960 .0960 .0960 .0960 .0960	CYNH CYNH 12550 12700 15720 18770 23310	ADIENT INTE			R9900		MAR 74 .
TY E E E E E E E E E E E E E E E E E E E	CNM	72, 72, 104396 109670 56280 56280 56280 56280 56280 56280 56280 56280 56280 56280 56280 56280	0 0000	x 15 2 2 2 2 2 3 3	ADIENT INTE			PARAMETRIC		
4.960 4.960 4.960 6.960 6.960 6.960	CNA	72, 72, CLeet .04396 .09670 .09670 .09670 .09670 .09670	652.00	2 13 12 12 12 12 13 13 14 15 15 15 15 15 15 15 15 15 15 15 15 15	ADIENT INTE					314,000
4.960 4.960 4.960 6.960 6.960 6.960 6.960 6.960	CNH 4.535 9.2611 9.8611 7.2633 7.2633 7.2633 6.3513	72, 72, 10,4390 10,9670 10,9670 10,9670 10,09670	0	2 13 2 12 2 E 2 2 3	ADIENT INTE					314,000
4.960 4.960 4.960 6.960 6.960 6.960 6.960 6.960	CNH 4.535 9.8611 9.8513 7.455 7.456 6.358 6.358 6.358	72/ CLINE - 14390 - 19670 - 23050 - 23050 - 35200 - 55200 - 55	0	x 55 2 2 2 2 2 2 3 3	ADIENT INTE			. 000		120.000
4.960 4.960 4.960 6.960 6.960 6.960 6.960 6.960	6.3513 6.3513 7.2433 6.3514 6.3514 6.3564	45 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	0	x 15 12 12 12 12 13 15 15 15 15 15 15 15 15 15 15 15 15 15	ADIENT INTE					
4.960 4.960 4.960 4.960 5.960 5.960 5.960	880000	. 04398 . 04398 . 09670 . 23050 . 39210 . 76580 . 57250 . 34260		-,12550 -,12720 -,13720 -,13730 -,13730 -,23310	ê		-5.00/ 5.00			
* * * * * * * * * * * * * * * * * * *		.04390 .09670 .23050 .39210 .5620 .76650 .67250		12550 12720 13720 18770 23310		;				
* * * * * * * * * * * * * * * * * * *		.09670 .23050 .39210 .56280 .76650 .34260 .34260		15720 15720 15770 23310 25960	בה לפר ה	5	CAB	XFP.	283	5
4.960 4.960 5.960 5.960 6.960		.23050 .39210 .56280 .76650 .87250 .34260	•	15720 18770 23310 25960	08680	68850	00000.	.58090	.00000	KABAN
2000 2000 2000 2000 2000 2000 2000 200		.39210 .56260 .76650 .87250 .34260			navia.	64480	.00000	.57930	00000	A4400
096.		.56280 .75630 .67250 .34260	.03790 .06310 .06250 .09110		. 09140	55200	. 00000	.57560	00000	
096.4		.76630 .87250 .34260	.06310 .06310 .06250 .09110	23310 23310 25960	.08680	46500	.00000	57170	00000	
D 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		. 67250 . 34260 04159	.06350 .06250 .09110	23310	09860.	-,35610	00000	0.003	0000	46500
9 **		.34260 04159	.06250	25960	.11310	24690	מטטטי.	12000	00000	-, 35610
* *		.34260	.06137	17020	02160	18810	0000	01100	. 00000	24690
; # #		04159	.00137	30000	.09280	46160	00000	. 56200	. 00000	19810
				.05642	- GG1 GA	0000	DOCAC.	27310	. 90000	46160
						JA	00000	. 60093	00000	02492
		HSFC	MSFC 583 (TAIF) 324 IN. DIA. ET (418 MD) WGRIT	324 IN. DIA.	ET (418 HC	D WGRIT		(69/000)		
W 0	ENCE DATA							Jan to to	CO MAR 74	(R 74)
							đ	PADANETOT BATA	7447	
	St. In							1 9 1 1 marketing	¥14	
•	•		Second IN.				BETA :	200	,	
885F * .972G IN		٠.	NI DOOD						E	315.000
SCALE 0030			·NI ppop.							
	d No	0 /93 '0	RNY =	5.09 GRADI	GRADIENT INTERVAL	10 at				
MACH ALPHA	3	3	į				20.0			
4.960 149.280	2.47740		1	3	ඒ	ర	CAB			
	2.73730	00000	09440	04520	04920	99390	.00000	Kapa D	CHES	ž
	1000	nonen.	,07620	04430	.04910	96510	. 00000		00000	99390
		DECCO.	07240	04500	.05450	90700	00000	2000	30000	96510
		1000		D4300	.04820	01.678		00000	00000	00406
	0. cnc .	.21340		05850	06070	36630		97876	. 00000	64210
	5.07510	.30440	06840	0880		1,0000	00000	. 57420	.00000	7662 th
	5.35910	39380		- D\$940		66660	. 00000	. \$7200	.00000	Casen.
4.960 139.200	3.90630	.08710		0.040		64280	. 00000	. 56960	00000	. 64940
CRACIENT	14332	01930		2000		-, 84640	. 00000	.57860	00000	20.00
			***************************************	. 00008	.00038	01730	00000	Office	2000	64640

(RSB063) (20 MAR 74)

	3.2890 IN.	.7420 54. IN MARE E 3.2550 IN.
_ ₹	3.2890	* 43900

		RUN NO.		25/ 0	RNA =	5.18	GRADIENT 1	INTERVAL	ii	-5.00,	8.00			
HOM	AL PHA	Š	3		2	3			ć					
4.560	169,630	69510	36320		Deser	0.540	40 024e0		40000		2000	XAX.	2	3
4.960	167 780	2000	100		0.000				201.4		מחחחם.	. 70990	. 00000	-1,1626
080		00000	Par .	_	DISTO.	3		-	1.1674		00000	.69700	,00000	-1.1674
	201.001	2108.	4n9:		.08690	- 003		•	1.1364		00000	.65880	00000	1164
360	159,650	1.29800	-, 358¢		.09230	087		•	1 DOKU		00000	0.000	2000	
4.960	155,650	1.77390	2677		Cooch						0000	0000	nnnan.	-1.0950
4.960	151.542	2.27720	207		0			•	1,0001		00000	.60870	, 66000	-1.0531
28.4	149 815	2 4621G	427			3		•	1.0098		00000	.59830	. 00000	-1,0098
200	140 640	2000			Decor.				-,9912		00000	,59220	.00000	9912
	000000	75000			02160	300		•	1.0974		00000	.63030	. 00000	-1.0974
	SANCIENT SANCIENT	¥30.	-, 0116		.00187	5000			9600*-		00000	.00598	. 00000	0096

MSFC 563 (TAIF) 324 IN. DIA. ET (418 MCA) WICRIT

(R99064) (20 MAR 74)

		S. N.	0 /13	RNT.	3.6	RADIENT INTE	NTERVAL = -5.00/	8 ,00			
¥CH	ALPHA		S. M.	ž	460	8		975	5		
.960	169.610		.38130	04220	00820	01160			777	Tad S	£
.960	167.900		.30390	.05250	08080	01380			1,016	00000	622
200	163,650		.17560	.05240	-, 03960	01110		0000		00000	1.233
. 863	179.620		.03120	.05130	-,00800	. 05040			2000	00000.	-1.825
. 960	175.770		.15690	.06230	09600	00.670			2424	00000	.1.222
4.960	171.770		.27210	.06770	0350	00000		20000	30475	00000	1.21
960	169.650	Ī	.31440	07050	03230	02630		2000	Docu.	00000	-1.196
960	179.820	.04020	.08530	.05650	01490	00420		2000	78500	pocon.	-1.165
	CAACIENT		.03573	00145	.00191	00175	-, 00224	00000	00300	Booon.	-1.22210



()

DATE 63 AUG 74	AUG 74		TABL	TABULATED SCHRIE DATA, MSFC THE SES	: DATA, MSF	C TAT 563				Ž	PAGE 49
			¥	MSFC 583 (TAIF) 324 IN. DIA. ET (418 MCD)	324 IN. DI	A. ET (418 H	ĝ		(899063)	5) (20 HAR 74	AR 74 3
	ACPER	AEFERENCE DATA							PARAMETRIC DATA	DATA	
SACF	7420	7470 Se. IN YESO	ti								
LATT	.9720 IN.			N 0000				BETA :	000.	THE T	000.
BACF .	.9720 IN.			0000							
SCALE .	.6639			•							
		5	RUN NO. 141/ 0	BINT =	6.93	ADIENT INTE	6.95 GRADIENT INTERVAL = -5.00/	00' 8'00			
HACH	AL PHA	Š	3	CYM	7	é	į	,		1	
1.653	50.710	•	4.03960		מטעשט	Draw.	4	9	XCP 人	180	2
1.953	92.610	6.13800	4.07460		01940	- 00870	20000	00000	. 46360	00000	. 56330
1.953	36.640	6.66520	4.17660	.00220	.01720	-, 00650	26710	סטטט.	104.	00000.	.57500
1.953	65,690	7,14200	4.27740		.01520	50230	54940	מניים -	00014	00000	.56710
1,953	64.695	7,61260	4.36770		.01230	00580	51900	00000	00000	00000	. 54940
1.053	68.670	7.68190	4.23670	.01210	.02710	00420	47980	00000	48010	20000	onere.
. 953	70.370	6.04350	4.20490	.00180	.02260	00320	46040	00000	49160	00000	0.8674.
. 43.00 P	60.650	7.14340	4.26590	60390	.01730	00510	55190	00000	47A7D	00000	0000
	GRACIENT	.10675	.01037	-, 56559	~. 00001	.00025	00507	00000	.00137	00000	00507
		25	REN NO. 1467	O RIVL =	6.30 GRA	GRADIENT INTERVAL =	VAL = -5.00/	0/ 5.00			
MACH	ALPHA	3	T. T.	HA.	3	é	į			3	
3.479	50.490	5,44810	3.37670	Creco	Conco	200	5	9	χ ζ	ē	ጽ
3.470	52,380	5.58960	3,43860	01730	03830	06100	Dense.	, 50000	.47480	00000	.59330
5.479	56.410	6.20780	3,53430	01320	0.550	00000	00000	00000	.47750	.00000	. 58640
5.47	60,420	6.66940	3.57070	09600	02.50	100100	19996.	ממממי.	.48360	00000	.56880
24.2	64.440	7.58040	3,60560	01230	01150	0,650	00000	ממחמם.	48970	00000	.54960
5.479	66,430	7,42945	3.63760	.01260	01810	0.0490	0716.	מחחחם.	9400	. 00000	. 51770
3.479	70,330	7.57630	3.62420	.01380	.01870	01760	0.4564.0	מטיטטי.	049740	00000	48040
2.47	00.420	6.67430	5.57600	09600.	. 02060	01690	. 55140	00000	48940	30000	
	SEADIENT SEADIENT	10764	.01213	• 0000	-,00067	00017	00674	00000	.00124	00000	. 00674
		RUN	RUN NO. 1457 0	B RNL =	4.99 GRAD	HENT INTERV	GRADIENT INTERVAL = -5,007	9.00			
HUM	ALPHA	ž	E.	N.C	7	ē	3		1	1	
4.960	50.340	5.37620	3.10730	00400	CP440	08120	80000	0 0 0 0	XPX.	<u> </u>	ጸ
4.360	52.230	5.60920	3,16330	0000	04390	- 01700	0.000	20000	.48210	. 00000	28880
4.960	56.290	6.14840	3.30860	07600.	02450	D4220	36.80	3000	.48390	00000	. 39040
4.960	69,260	6.55850	3,40780	,00200	.02700	02890	00015	00000	00684	00000	.56150
4.960	64.280	7,03810	3,46990	01120	.03380	52640	49800	ים מינים מינים	06064	00000	28000
4.660	69.260	7.40640	3.50880	.01920	. 02360	04690	44920	00000		00000	.49600
4.960	70.160	7.58950	3.53130	00700	. 03320	03150	42680	00000	2000	00000	44920
4.960	60.269	6.57960	3.37160	06100.	. 02680	04050	.53120	66665	00:07	00000	42680
	CRADIENT	.11157	. 52089	-,00025	-, 60011	-, 00035	OD868	00000	66000	. 00000	00868

	MSFC 563 (TAIF) 324 IN. DIA. ET (418 MCD)	(R98066) (E0 MAR 74)
PENCE CATA		PARAMETRIC DATA
50. IN MARP 8	T CONTRACTOR	

	ACTER	ACTERENCE CATA	*									PARAMETRIC DATA	C DATA		
\$60°	24.00.40		40	•	•		:								
CATT .	.8720 JA.		a do	16 61	'n	N1 0862.6	ż:				BETA =	000.	Ŧ	14	000.
BRUF *	.9720 IN.	ž	2	140	,	.0000 IN.	żż								
SCALE =	0000														
			3	ģ	RUN NO. 1427 0		RNJ. =	96.9	GRADIENT INTERVAL. =	XVAL = -5.	-5.00/ 5.00				
#U¥	A PHA	3		ď	A TO	δ	76	200							
1.955	60,350	6.43	1.45470	3.6	3.64060	0	01900	02150	- 00300	14010	983	XPA	1965	, i	3
1.959	62,240	6.47	1.47010	3.4	3.49400	0	01750	11690		200	ממחמי.		9	000	34930
1,955	66,220	8.62	62550	2	3.23530	č	Cape	7010		Delle.	noon.		8	000	.31190
1.955	90,190	9.65	65560		A9995	Č	00000	2000		.23240	00000		ē.	000	.23240
1.955	94.160	8.65840	840		2 5445n	ć		מביסים י		14540	. 00000		00	000	.14640
1.955	\$8.130	8.48970	04.6		18110		3 0 0 0 0	0.000		.05510	. 60900		, 00.	000	.05510
1.955	100,010	8.3998	980		00400	9 6	ביים מים	- 500570		04690	.00000		,00	000	04690
1.955	90,180	8 52240	200		00000			16000°-		09220	. 00000	٠	9	000	09220
	GEACIENT	5000	300		06660	į	02:00	07610.	-,00590	.14580	.00000	. 52460	00000	000	.14580
			;	,	2	Š	on tr	00118		02248	.00000	Ī	.000	200	02248
			RUN NO. 1437	đ	143/ 0		RN/L =	6.91	8.91 GRADIENT INTERVAL : .5,00/	TVAL : -5.0	10/ 5.00				
# CH	ALPHA	3		N O	Į	3	_	200	ŧ	į					
3.479	69,290	8.14690	290	3.34	3.34560	ď	0110	200	707	5	BY.	X Z	5		S S
3.479	62.180	6.21790	200	3.26820	1820		3 5	0,240	04500.	00866.	, 55000	.51110	000.	_	35900
3.479	66.170	8.31960	960	3.04	230	ě	040	2000	01900-	21940	.00000	.51340	.000	_	31940
2.479	90.170	8.34400	001	2,79450	1450	00.	.00360	09800	מצייה -	00500	00000	.51880	. 0000		.23900
479	94.160	6,32490	061	2.50390	1390	8	360	00310	0.00	00140	י ממממ	05430	000		.14780
24.0	96,120	8.21630	330	2,21260	260	ממ	600	01630	מפטעט	0.000	י מסטמי	. 53020	000		.05120
5.47	100,010	8.14390	061	2,04590	290	60190	190	กรอดีก	מטיים.	0.000	י ממממי	.53570	50.		04670
5.479	90.150	8,34350	150	2,78890	968	06390	290	00890	neson -	0.000	00000	0985C.	000		09320
	GRACIENT	-, 00960	900	-, 66621	621	-,00057	657	ב ההואס	13000	DOREST.	ממטים.	, 52440	000		.14930
							•		corn.	66320**	00000	.00140	000		02299
			RUN NO. 144/ B	<u>ن</u> بر	41 0	RNZ.	31 _1	5.11 G	5.11 GRADIENT INTERVAL = -5.00/	WAL = -5.0	0/ 5.90				
HUM	AL PHA	3		3	I	Ž		7	ē	;		•			
4.960	60.240	8.03620	20	3.28560	560	0	200	Cenon	100	5	243	χ ζ	CP0		å
4.960	62.130	9.12560	09	3.24660	299	00230	230	U.V.	Danco.	37630	00000	31140	. 00000		.37630
4.960	86.130	8.25180	90	3.06390	290	- 50640	2	04560	Dece of	0.000	ממלים לי	21300	000.		. 55570
4.960	90.120	6.23370	5	2.01830	930		080	03050	0.100	00000	onona.	.51800	000.		.24940
4.960	94,140	8.21730		2.57440	049	D6860	160	01220	Design of	notes:	paona.	.52300	000		.15100
4.960	96.110	6.10310		2.26865	963	10.	000	ניסיום	00.00	00000	Bonna.	.52800	.000		. 64 800
4.960	100.010	6.01800		2.13330	330	52950	50	- FOREIG	02840	06150	00500	.53360	. 00000	·	-, 56120
4.960	90,120	6.23440		2.93130	130	0		04040	2000	3 P C C C	00000.	. 53620	. 000		-, 11490
	CRACIENT	05129		54040	9	000			. 06960	Dinci.	00000	. 52270	000.		. 15570
			;				•	C 0100 %	crono.	-, 52482	. 66566	, 66127	. 600		52482

			I	MSFC 563 (TAIF) 324 IN. DIA. ET (418 MOD) WICELT	324 IN. DI	14. ET (418)	CO) WGRIT		(R\$9067)	17) (20 MAR 74	148 74 3
	ADTR	REFERENCE DATA									
E CO	7470		4						FARAMETRIC DATA	DATA	
LAD .		IN. THE	4 1	S. Case IN.				BETA =	000	PAIL	.000
BACK R	0626			. Ny nnon-							
SCALE &	0000			NI noon.							
		and and a	RUN NO. 111/ 0	O RNL =	7.00 08/	GRADIENT INTERVAL =	RVAL = -5.00/	00'\$ /00			
101	ALPHA	Š	2	2	1	Í					
1.849	106,620	7.36290	1.09690	,	10000		5	CAB	XPX	CRB	ደ
8.848		7.52130	1,50150	·	01020	0.000	08860	00000	. 55650	00000	08860
1.943	94	7.95110	1,68990	·	- OKARD	0.000	01550	00000	.55240	00000	01550
4.949		0,34760	2.05120		10510	00000	01961.	00000	54580	.00000	.13610
1.949		6.58140	2,45780		02406	0.000	26340	. 00000	.53980	.00000	. 26340
1.949	90.650	8.64700	2.79570		25250	00000	25765	00000	.53270	.00000	.37220
2.849	04.970	8.64800	2.93610	·	01111	0621n -	.47460	00000	. 52630	00000	47460
1.949	98.650	6.25200	2.02780	_	0.55530	01450	.51780	00000	.52350	. 00000	.51780
	CRADIENT	06793	-, 09294		00707	מטטי-	.26150	.00000	.53980	00000	.25150
					0116	Zinon.	03073	00000	.00164	.00000	63073
		5	HUN NO. 1137 U	e RNA ::	6.46 CRA	GRADIENT INTERVAL :	W. = -5.00/	00'8 /0			
	A TA	ž	3	KAO	STATE OF THE PERSON AND THE PERSON A	ë	3	ć		1	
K 7.0	109.830	7.16990	1,13320	-,07360	01750	01420			Z Z	ē	ž
2.4%	107,320	7,32600	1.28210	07980	0.0000	04760	01561.	Booon.	.55500	.00000	-, 15310
3.479	103,300	7.69080	1,56900	09860 -	05050	00110	-, 08280	00000	.55200	, 00000	0628 0
3.47	99.290	7.93080	1,82200	10650	Deser	00110	021cn.	00000	.54700	00000	.05120
3.478	95.270	6. 0699B	2,11660	11460	00200	2710	. 42740	. 00000	.54250	. 00000	.22740
3.479	91,300	0.16590	2.43350	13000	00000	0440.	.38420	. 90000	. 53690	.00000	.36420
3.47	69.410	0.21800	2.58980	12760	1 08980	02250	49430	00000	.53060	.00000	49430
3.474	99.290	7,91040	1.76850	10580	05760	neero.	.54150	00000	.52770	.00000	.54150
	CRADIENT	65257	07242	. GG281	200	00000	.22450	. 00000	,54360	.00000	.22450
						Anno.	03598	. 00000	.00133	. 00000	-, 03598
		RUN NO.	NO. 114/ B	BNYL =	5.05 GRAD	GRADIENT INTERVAL =	AL = -5,00/	5.00			
HO4	ALPHA	Š	Š	700		É	į				
4.960	109,660	7.04760	1.05220	-,09690	Ot A A D	יפר היים	5	CAB	XCP./	192	g
4.960	107.780	7,15510	1,14330	7. D864G	Opren.	0.00	16780	00000	. 55650	. 00000	-,16780
4.960	103.750	7.47710	1.37520	-,11150	01600		1,1000	00000	. 55470	. 00500	10290
4.960	99.740	7.69510	1.62340	11340	Cokon	0.00	2000	00000	. 55050	.00000	.03540
4.980	95.720	7.83120	1.93260	-,12650	02920	Second Second	0.000	00000.	. 54580	.00000	.19640
4.960	91.750	7.93480	2.23160	2283G	Debon	0,000	2410	Donno.	. 53960	. 00000	.37470
4.960	69.650	7.97500	2.39570	14300	00000	. 04530	49160	00000.	. 53360	. 00000	49190
4.950	99,740	7.58980	1.64880		0.2.0	. 6460	.54240	. 00000	. \$3030	.00000	07675
	2.2.00			737 1	04510	. 07580	06561	00000	RARDA		
	CARACIL MI	- 116 V.F.						* * * * * * * * * * * * * * * * * * * *	79010	00000	4040

MSFC 583 (TAIF) 324 IN. DIA. ET (418 MOD) WGRIY

(R99068) (20 MAR 74)

*** STEAT NAME TO STATE THE THE STATE OF THE STATE OF STA														
1742 64. 14 104 2 1249 114 1		KOT.	RENCE DA	2							PARAMETRIC	DATA		
STATE 14,	pag.	.7420	2	9		5000								
### 1972 14.	LAGT R	9720			4 41	. K. D. C.					000.	PH.		90.000
ALPHA CM		976.	ż	ZHEP	i (a	0000 to								
MAPPA CMM	SCALE E	.0030												
102.665 9.34870 1.2891038570188703859000950 1.38790 1.00000 1.55790 1.00000 1.00200 1.55790 1.00000 1.00200 1.00200 1.55790 1.00000 1.00200 1.00200 1.55790 1.00000 1.00200 1.00200 1.00200 1.55790 1.00000 1.0020				3			7.01	RADIENT INTE		00' 2'00				
106.020 6.43110 .991203357018870188701887000350 0.00000 .85790 .000000 .85790 .85790 .85790 .85790 .85790 .85790 .85790 .85790 .85790 .85790 .85790 .85790 .85790 .85790 .85790 .85790 .85	MACH				Đ	Š	Cyne	ē	3	•	•			
116.570 6.48270 1.2219033590181003185001860 .000000 .35510 .000000 .35510 .000000 .35510 .000000 .35510 .000000 .35510 .000000 .35510 .000000 .35510 .000000 .35510 .000000 .35510 .000000 .35510 .000000 .35510 .000000 .35510 .000000 .35510 .000000 .35510 .000000 .35510 .35520 .	1.950	-		310	.99020	•	Ī	34280	45	E VE	XP7,			ጸ
102.60 9.97670 1.60300 -35840 -318160 -318160 -318140 -310000 -358140 -310000 -358140 -310000 -358140 -310000 -358140 -310000 -318140 -31816	1.950	•	_	270	1 22190	•		0000	DEC	00000	. 56200	60.	00	-, 09550
9 9. 660 9.31950 1.99640351603516035160 0.00000 0.00000 0.35140 0.00000 0.99.660 9.31950 1.996403516035160 0.35	1.950			570	TO SOLUTION I			0010-	01160	00000	. 55790	900.	8	-, 01160
10 10 10 10 10 10 10 10	1 990				000000			33380	.14400	.00000	. 55140	000	00	1440
0.0000 0				2 0	1.500		·	34070	.28220	20000	.54520	000	20	0000
98.680 9.28620 1.937903862038920 .53890 .00000 .33330 .00000 98.680 9.28620 1.937903862038390 .27580 .00000 .33330 .00000 98.680 9.28620 1.937803862038390 .27580 .00000 .38330 .00000 RAPHA CAM CLMM CTM CTM CTM CTM CM CLM CLM CTM CTM CTM CTM CTM CTM CTM CTM CTM CT	2000			970	2,41700			.35090	.40130	.00000	51840	200	3 6	2000
0 0 0 0 0 0 0 0 0 0	000			011	2,71330	3569(·	.34960	S0340	מטטט	20000		2 6	S TO T
98.680 9.24650 1.9737034640270203733027600 0.00003533000000 0.45430 .00000 0.45430 .00000 0.45430 .00000 0.45430 .00000 0.45430 .00000 0.45430 .00000 0.45430 .00000 0.45430 .00000 0.45430 .00000 0.45430 .00000 0.45430 .00000 0.45430 .00000 0.45430 .00000 0.45430 .00000 0.45430 0.45450 0.4550	1,950		•	180	2,86790	-,3456	Ī	35300	64848	2000	nece.	000	3 :	5034
### CAM	1.950	98,680		350	1.97570	3484	•	00000		nonno.	23030	900.	8	5454
#### CN# CLM CTM CTM CB CB CABDIBNT INTERVAL = -5.00, 5.00 ##### CN# CLM CTM CTM CB		CRACIENT		335	09528	-,0006		,00204	-,03224	00000	. 54530	000	8 8	.27600
#### CHM CLM CLM CTM CTM CBL CA CAB XCPAL CF81 109.090 6.26830 .9275035460138603181037160 .00000 .55500 .000000				S. N.	116/	ž	6.38	ADIENT INTER						
109.090 6.26630 .92750354601366023520 .222660 .00000 .55300 .00000 .00000 .55300 .00000 .00000 .55300 .00000 .00000 .55300 .00000 .00000 .55300 .00000 .00000 .55300 .00000 .00000 .55300 .00000 .00000 .55300 .00000 .00000 .55300 .00000 .00000 .55300 .00000 .00000 .55300 .00000 .55300 .00000 .00000 .55300 .00000 .55	HOW.	AL PHA	3		¥,0	Š	AND CANA	ē	3	975	Š			,
107.210 8.39990 1.0849035030155001555000000 .95500 .900000 .95510 .90000 .95510 .00000 .	24.0	109,090	6.268	30	.92750	-,35460	·	41620	20000		ALPAL	5		Š
103.170 8.71370 1.37080360001730017400174001740025400 .000000	5.470	107.210	6.390	90	1.08490	-,35030			00000	Dogge.	26300	0000	2	-, 2268
99.150 9.03310 1.63530379901781033690 1.4930 .00000 .95100 .000000	2.479	103.170	6.713		1.37080	36000		Dance (00111	20000	.56000	0000	g	1716
95.130 9.19790 2.02200413302413014070 .11440 .00000 .53430 .00000 .00000 .00000 .00000 .000003430 .0000034300000034300000034300000034300000034300000034300000034300000034300000034300000034300000035700000037700000037700000037700000037700000037700000037700000037700000037700000037700000037700000037700000037700000037700000037700000037700000037700000037700	3.47	99.150	9.033		1,63530	09646		41600	04040	00000	Diece.	0000	2	0234
91.160 9.33900 2.39730433003647031440 .00000 .33790 .00000 .32700 .000000	3.479	95,130	9.197		2,92200	41330		00000	20044	nonn.	. 55100	. 0000	2	1493
69.270 9.33660 2.31290455503547034220 .00000 .35370 .00000 .00000 .35370 .000000	3.470	91.160	9.339		2.39740	44140		2.54070	.31440	00000	54430	. 0000	9	.31440
99.150 9.01690 1.64760384801793033670 .00000 .35570 .00000 .00000 .35570 .00000 .35570 .00000 .35570 .000	3.470	69.270	9.336		1.5120A				.42050	, 00000	53790	0000	Ö	.42050
CRACIENT0563608071 .00521 .00954 .0016003632 .00000 .35070 .00000 .00137 .000000	3.479	99.150	9.016		64760	1888E		234750	.46630	00000	.53570	0000	Ö	.4665
RUN ND. 115/ D RN/L = 9.06 GRADIENT INTERVAL = -5.00/ 5.00 .00137 .000000		CRACIENT	086		Den's		•	1.000.	. 14450	00000	. 55070	.0000	ø	.14450
RUN NO. 115, 0 GN/L = 5.06 GRADIENT INTERVAL = -5.00, 5.00 4, PHA CLM CLM CYM CYM CBL CA CAB XCP/L CFB1 109.600 8.10200 1.0534038140094703035025810 .00000 .35990 .00000 107.700 8.2040 1.1640038600113103024019720 .00000 .55960 .00000 109.600 8.61510 1.4290039610113703150006680 .00000 .55960 .00000 99.600 8.61510 1.42900396101137032200 .00000 .54940 .00000 99.600 9.12060 2.05430439901702032200 .00000 .54940 .00000 99.600 9.27770 2.46500485002246032230 .00000 .53830 .00000 99.600 8.6060 1.7060465002734032860 .00000 .53830 .00000 99.601 8.6060 1.7060465001444031930 .00000 .00000 .54900 .00000						Tena"	468D0 .	.00160	03632	00000.	.00137	0000	O	. 03638
4LPHA CHM CLM CYM CYMM CBL CA CAB XCPAL CF81 109,600 8.10200 1.5590 .00000 .00000 .00000 107.700 8.2640 1.05405860113103524019720 .00000 .55760 .00000 .00000 105.600 8.61510 1.42900396101137035240 .00560 .00000 .55760 .00000 .55760 .00000 .55760 .00000 .55760 .00000 .55760 .00000 .55760 .00000 .55760 .00000 .55760 .00000 .55760 .00000 .55770 2.35140456002246032230 .41660 .00000 .53230 .00000 .53220 .00000 .53220 .00000 .55770 2.465002734032260 .00000 .53220 .00000 .55770 2.465002734032260 .00000 .53220 .00000 .55200 .00000 .52200 .00000 .52220 .00000 .52220 .00000 .52220 .00000 .52220 .00000 .52220 .00000 .52220 .00000 .52220 .00000 .52220 .00000 .52220 .00000 .52220 .00000 .52220 .00000 .52220 .00000 .52220 .00000 .52220 .00000 .52220 .00000 .52220 .00000 .52220 .00000 .52220 .00000 .00000 .52220 .000000				Š Š	115/	RECL		DIENT INTER						
109.600 8.10200 1.0334038140034703035025810 .00000 .35990 .000000	# CH	ALPHA	Š		¥	Č	7	é	;	•				
107.700 6.28040 1.16400368001131035240 .00000 .55990 .000000	1.960	109.601	9.1020		05340	58140	06760	197	و و	CAB	XPX イ	ğ		£
103.690 6.61510 1.42900 -39610 -111370 -31560 .00000 .55760 .00000 .55760 .00000 .99.660 8.69520 1.69310 -111370 -31550 -06560 .00000 .55360 .00000 .99.660 9.12660 2.05430 -117020 -32430 .27300 .00000 .54940 .00000 .99.660 9.23730 .00000 .54940 .00000 .91560 .00000 .54940 .00000 .915600 .000000 .915600 .000000 .915600 .00000 .915600 .00000 .915600 .00000 .915600 .00000 .915600	1.960	107.700	8.29G4		18400			000000	01862.	00000	. 55990	. 5000		25810
99.660 8.8962 1.633104037011260105680 .00000 .53360 .00000 .59360 .00000 .59360 .00000 .59360 .00000 .59360 .00000 .59360 .00000 .59360 .00000 .59360 .00000 .59380 .00000 .59380 .00000 .59380 .00000 .59380 .00000 .59380 .00000 .59380 .00000 .99360 .47360 .00000 .59580 .00000 .00000 .59680 .47360 .00000 .59580 .000000	096.1	103,690	8.6141		42000	20000	0 2 2 4 4	0400	19720	. 00000	.55760	, 0000		. 19720
93.640 9.12660 2.034301126032200 .09830 .00000 ,34940 .00000	1.960	99.860	A BOAR		20100	0.000		31500	05680	00000	.55360	. 0000	•	05660
91.640 9.23730 2.131404560032430 .27300 .00000 .54330 .00000 69.2430 9.23730 .00000 .54330 .00000 69.2470 2.246033230 .41060 .00000 .53820 .00000 69.760 9.27270 2.463702734032860 .47360 .00000 .53820 .00000 69.660 8.86660 1.70660468801444031930 .09520 .00000 .54900 .00000 .54900 .00000 .54900 .00000 .54900 .00000	040	04 640	9564		01000	מולמות יי	11260	32200	.09830	00000	.54940	.0000	0	GORSO
69.780 9.27270 2.463004837033230 .41060 .00000 .53820 .00000 89.780 9.27270 2.463702734032860 .47360 .00000 .53820 .00000 .53830 .00000 .53830 .00000 .53830 .00000 .53830 .00000 .53830 .00000 .53830 .00000 .53850 .00000 .53850 .00000 .53850 .00000 .53850 .00000 .50021 .00000 .00000 .50021 .00000	000	91 840	200		30.00	.43890	17020	32430	.27300	. 66000	54330	0000	0	27366
99.880 8.86860 1.70860468703184031840 .00000 .31830 .00000 .31830 .00000 .31830 .00000 .31850 .00000 .34850 .00000 .34850 .00000 .34850 .00000 .34850 .00000 .34850 .00000 .34850 .00000 .34850 .00000 .34850 .00000 .34850 .00000 .34850 .00000 .34850 .00000 .34850 .00000 .34850 .00000 .34850 .348	0 9 9	200	2000		30160	43680	-	33230	.41060	.00000	.53820	. 0000		45.6
23.000 8.66660 1.706604068019930 .09520 .00000 .34900 .000000	000	200.00	9.2727		.46300	48370		32860	.47360	.00000	. 53630	0000	, ,	
19345 19000 00000 - 00147 10000 19100 191000 191000 19100		200.00	0000		. 75860		14440	31930	09860.	.00000	54900	0000		00400
			**************************************		. 07234	00463	60800.	. 50147	03766	.00000	. 66121	Oppor		

# 60 m																
* * b					I	SFC :	383 (TA15)	324 IN. D	MSFC 383 (TAIF) 324 IN. DIA. ET (418 MOD) WIGHLY	CO) WGRIT			(880068))		C 25 HAR 74	2
b b	ACPEACIACE DATA	ENCE	CATA									A.	PARAMETRIC DATA	DATA		
b :	.7420 59. IN	20.00		900	H	3.940	8.9590 IN				į					
1	.9720 IN.	ż		d Section	н	000	.0000 IN.				DETA	ez	. 600	Ī		100.000
BAEF *	.9720 IN.	ž.	N	200	10	000	0000 IN.									
SCALE E	0899															
			er .	S N	0 /101 ~	0	RPC II	7.01 GR	GRADIENT INTERVAL =	RVAL = -5.0	-5.00/ 5.00	9				
MACH	ALPHA	_	ž		3		XX.	Chille	ē	3			,			
1.947	100.040	-	7.20079	G	1.04810	0	04490	08980	0770	00130	20000	5	X.P.Z.			£
1.947		_	.36830	5	1.25240		04880	04690	04970	חלפטט.		3 5	20000	DODOO.	3 2	09150
1.947	-	P -	. 6 9D		1.64310	c	09470	02190	04530	16710	000	3 8	0.000	ממממה.	3 8	00270
1.947		46	08680.		2,10020	~	09070	01050	.05020	30490	000	3 8	84746		3 8	10710
1.947		c	30160		2,46250	·	Q440	24160	.05120	43150	000	9	00000	֓֞֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓	3 5	20000
1.947		•	3,37190		2,64000	•	01160	-,14860	.04760	54340	000	8 8	52350		3 8	00104.
1.547	69,020	e (3.36340		2.90860		01700	15940	04980	.59510	000	60	52050	000	2 8	3681
	208.00	3	8.01250		2.07910	_	03850	06000	.04790	.30460	.00000	8	53740	0000		30480
	MACHENA.	ĭ	66990.		59849	_	.00411	.01344	00018	03429	. 00000	8	.00184	00000	2 2	03429
HO4	ALPHA	U	ž		3		CYN	AN C	ê	đ	9					
3.478	109,260		6.89420		.00640	•	12000	U4940	9	5	9		7	ē		ደ
3.478	107.370	-	7.02620	-	15830	_	.11830	05060	Desp.	01212.	00000	3 5	55710	00000	9	-, 21210
5.470	103,340		7.30140	_	1.49570		.12530	08780	07910	00101	200	2 9	39266	0000.	· •	.14130
3.476	99.310		7.59280	•	1.78290		-,13010	.03620	07550	10970	00000	2 5	24040	00000	9 (0300
9.470	95.310	*	7.76070	e.	2.12920		10020	.11050	.08110	37810	2000		23400	anno.	> c	19870
27.7	91.340		7.69030	N	2.46160	٠	08430	.15280	.07400	49650	טבייט		3000		٠,	7010
2.479	69.440		7.95420	N	2.65050	•	08470	.13420	,07520	54790	00000		52460		,	06964.
2.47	99.330		7.59260	~ ∶	1.78270	•	.13770	.03520	.07860	19450	0000		54170		, ,	
	GRADIENT	•	05399	6	08199	•	00202	00529	. 00037	-,03954	.0000		00161	. 60000		.03954
			2	9	RUN NO. 118/ 0		RN/L =	5.02 GRA	DIENT INTER!	GRADIENT INTERVAL = -5,00/	5.00					
M CA	AL PHA	Ó	3	Ĭ	¥	_	CYH	CYN	ð	5	2		Š	į		1
4.960	109.670		1.77010	-	1.11500	Ĭ	17660	02960	.10290	24020	0000		RETOR	1945		7
. 960	107.770	•	3.86320		.22140	٠	-,10920	.07490	.10690	17839	.00000		44140			02092
4.960	103.750	<u>.</u>	7.17210	<u>.</u>	1.55860	·	-,20290	.06260	.10100	-,02240	.0000		34470		•	. 17630
. 960	99.740	4.	.41130	445	. 84140	í	20980	.03630	. 09630	.15400	0000		53930	00000	•	70000
090	02.720		7.59670	ev .	1,12090	·	-,20560	.06180	.12200	.34340	0000		53400	0000		03961
96.	91.760		.76680	e.	2,46180	í	22320	01650	.11590	.49210	00000		52740	ממטמט.		3000
000.	69.660	4.1	.77750	e.	2.57670		24520	06740	.10230	.54090	. 00000		52490	00000		44000
. 96.0	99.760		21865		1.63020	•	.20400	. 03470	11390	.14950	. 05569		53980	00000		20000
	CAACIENT		.08303	•	67477											

'A

MSFC 565 (TAIF) 324 IN. DIA. ET (418 HOD) W/GRIT

	111111111111111111111111111111111111111	AUTRENCE DATA							PARAMETRIC DATA	DATA	
Pag.	7420 80.	200	H	2000 50				,	6		6
LAGE .			1	.0000 IN.				4	•	# E	200.00
BRUF .	.9720 IN.	2002		.0000 IN.							
SKALE R	0000			:							
		S	RUN NO. 106/ 0	O RM. =	7.02 GRA	GRADIENT INTERVAL =	1VAL = -5.00/	00' 2'00			
HYCH	ALPHA	3	4	N.C.	CYNE	Ø	đ	CAR	200	9	į
1.942	108.710	7,75600	.78200	-,19330	.01550	23410	13100	00000	SEADI	ממטטט	
8.942	106.820	7.94760	.97290	19160	C3180	23560	04320	00000	28.20		
1.942	102.760	6.37230	1.39770	-,19300	02140	.24390	.12350	00000	26888	00000	
1.942	96.740	6.70530	1.60030	23160	06060	24900	.26060	00000	54650	00000	
1.942	94.730	6.90110	2,23600	22660	08690	.25240	.38470	00000	53880	00000	
1.942	90.760	9.04530	2.64890	-,22110	-,10150	.25600	.49270	00000	.53160	00000	
1.942	068,88	8.98570	2,77550	-,21420	10650	.25160	53790	00000	52880	00000	
1.942	24.760	8,62380	1.77260	22690	09630	.25110	25990	00000	.54670	00000	
	GRADIENT	06472	10229	.00162	.0071	00108	03351	.00000	.00163	00000	٠
MO#	AL PHA	3	SC.	CYM	CYNA	ළ	5	CAB	XFA	CP81	£
3.470	109.150	7.73660	. 67200	09020	02170	.22940	24470	00000	56290	00000	•
2.47	107.240	7.87200	1.00030	06860	03730	.23550	-,18130	00000	.56040	00000	-
3.470	103.230	6.18210	1.31770	-,10450	01380	23770	04560	. 00000	.55450	00000	Ī
3.478	99.210	6.49760	1.62070	10100	04920	,24220	.12880	. 05000	.54930	. 00000	
3.479	95,190	8.64200	1.93730	14210	11240	.24890	.29450	.00000	.54350	00000	
2.470	91,220	06608.9	2.36650	13670	11200	.25300	.39610	, 00000	. 53580	. 00000	
0.470	89.330	6.63580	2,53350	13650	11430	,25030	.44710	00000.	.53260	. 00000	.44710
2.479	99,210	8,49130	1.63350	10890	-,04400	.24950	. 13630	, 00000	.54950	. 00000	13030
	SAACIENT	•,05691	58373	.00259	. 00535	-, 50110	03593	. 00000	.00152	, 00000	03593
		RUN NO.	ND. 1197 0	RNAL =	5.07 GRAE	GRADIENT INTERVAL =	VAL = -5.00/	02.8.70			
HYCH	AL PHA	3	4	CYR	CYNE	CBL	3	CAB	X	100	100
4.960	109.620	7.56490	98890	02070	02620	.22900	26710	00000	56000	ייייייייייייייייייייייייייייייייייייייי	9444
4.960	107.720	7,77130	1.13150	03310	.03200	.23410	25800	00000	55720	00000	
4.960	103,720	6.07600	1.46590	0695G	06400.	.23480	07280	00000	0.0000	00000	
4.960	99.710	6.45040	1,70010	07130	-,01320	.22980	. 58420	62200.	54730	. 00000	
4.965	95.660	9.61150	2.01280	10650	05590	.23210	.26430	60536	.54160	00000	
4.960	91,710	8.74150	2.31990	12880	14020	.23620	39290	65555	53640	00000	30200
4.960	69.610	0.79320	2.46810	13400	-, 18410	.24150	.44410	00000	.53370	.00000	
4.960	99.710	8.34630	1,66940	07110	00650	.24090	00460	00000	94770	00000	

DATE 03 AUG. 74			1	MART RAY CAMES WAS TO							PAGE 55
		1) CBC 2-631) C 2 C 2 C	A 15	524 IN. DI	MSPC 563 (TAIF) 524 IN. DIA. ET (418 MCD)	ê		(R95071)	713 (20 MAR 74	48 74 1
ALTERNE DATA	MCE DATA								PARAMETRIC DATA	: DATA	
84. In wester s in.	s dbu ni	u 4	.2590 IN.					BETA =	000	# # #	900
.9720 IN. 2000 E . 0000 IN.	296.P		.0000 IN.								
RUN NO. 159/ 0 RN/L =	159/ 0	159/ 0			6.67 CR	GRADIENT INTERVAL .		-5.00/ 5.00			
3	CLIM		¥.		CYNA	ਵੱ	ð	8	200	1405	į
	3.90740		08860		.07760	.00780	.46660	.00000	46660	00000	46640
_	2.95680		0.08340		.07730	.00620	.45720	00000	.46950	00000	45720
7.01510 A.17390	4.17390		00620		09890	26010.	42870	00000	.47530	00000	.42870
7.20100 3.90680	3.90680		07650		02860	0110.	41610	00000.	47910	00000	.41610
7.53640 5.82770	3.82770		.08670		00420	01200	COOK!	מטטטט.	02994	00000	.42650
7,76310 3,61520	3,61520	Ĭ	.10540		05200	01030	.25600	ים מטים י	40730	00000	00686.
6.75740 4.00550	4.00550	_	.07020		. C3190	.01050	.42510	00000	47950	0000	00000
CAACIENT .0923800690 .00052	-, 06690	·	. 66652		00564	61000.	00841	.00000	00154	00000	00041
ALPHA COST COST COST	2 /CC1 - 22 FOX	3			8.32 8.32 8.32	GRADIENT INTERNAL =	W. = -5.00/				
5.243A0 3 84620	1.84620		00000			3	5	2	ムが	Se Se	ጸ
5,46350 3,41450	3.41450		07600		(P170	0.700	. 52460	00000.	.47160	00000	. 52460
5.94930 3.51910	3.51910		.06450		03160	01050	Dates.	מממחי.	47390	00000	. 53440
6.48350 3.59940	3.59940		06240		.03170	01370	48930	0000	00000	00000	52390
6.95030 3,64920	3.64920	•	.06290		.01370	greso.	43530	00000	70004	00000	46930
7.32560 5,64400	3,64400		.06790		.00400	.00750	35920	00000	49600	00000	20004
7.48210 3.57990	3.57990		0.06620		01040	.00410	.52170	00000	49930	00000	04.65
3.47410	3.47410		06010		00070	. 66388	49130	, 00000	49020	00000	10130
Sanno"- Sayin' forth	- FRYING		98000"-		00158	25000	01045	00000	.00138	, 00000	01045
RUN NO. 1547 D RNAL 3	154/ 0	154/ 0			4.93 GRAC	GRADIENT INTERVAL =	/NL = -5.09/	00.5 /			
ALPHA CNN CLIM CYN	CLMM		CAN		CYNE	ð	3	88	Š	-	
5.24810	2.95640	•	.03820		. CB 890	02930	.57050	00000	1/1/		2
5.49700	3.02660	•	.04050		.06470	02130	. 55560	00000	48660	0000	.57050
6.04000	5.14910		. 04410		.06500	03250	51180	00000	0000	00000	135560
-	3.23740	·	.04710		.05850	02700	49410	00000		00000	.51180
•	3.34740	·	.06730		.06110	02720	45760	00000	01064	00000	.49410
•	3.37990	•	01710		.05350	06720	0000	00000	3667	00000	.45760
7.52890 5.38030	5.38030	•	.05360		04520	-, 02140	36020	00000	06205.	, 00000	.39620
6.29650 5.29080	\$.29080	•	06790		. 04760	03490	.49330	00000	04107	00000	36620
GRADIENT .11591 .02164 .00063	. 02164		. 00083		00012	- 00075	00996	00000	66000.	00000	. 669350
											10000

MCTACKEE DATA MCTACKEE MCT				7	MSFC 583 (TAIF) 324 IN. DIA. ET (41B MCD)	324 IN. DI.	1. ET (41B M	â		(R99072)		(20 HAR 74)
1,720 38. 1		RUTLAEN	KE DATA							PARAMETRIC DATA	DATA	
44, FM.4 Chm CLMM CTM CTM CBL CMADENT INTERNAL = -5,007 5,00 6,000 6,32270 2,33190 -,03530 -,04530 0,1120 -,17550 0,00000 6,32,240 6,32310 1,13500 -,04530 0,1110 -,24530 0,00000 6,32,240 6,32520 2,33190 1,13700 -,04480 0,1110 -,37500 0,00000 6,32,240 6,32520 2,33190 1,13700 -,04480 0,1110 -,37500 0,00000 6,32,240 6,32520 2,33190 1,13700 -,04330 0,01120 -,37500 0,00000 6,32,240 6,32520 2,31390 1,13700 -,04330 0,01120 -,37500 0,00000 6,32,240 6,32520 2,31390 0,03500 -,03440 0,1110 -,37500 0,00000 6,32,270 2,31360 0,03500 -,03440 0,1110 0,0350 0,32270 2,31360 0,03270 0,03240 0,03170 0,03270 0,03270 0,03240 0,03270 0,0	אלב : עאר :		ž.	H 18 H	.2390 IN. 0000 IN.					000	#	000.
### CFM CLM# CFM CPM CBL CA CABON ### CBL CA CABON #### CFM CLM# CFM CPM CBL #### CFM CLM# CFM CPM CBL #### CFM CLM#B			\$				OIDM IMEN					
# \$1,350 #.23190 \$,03240 .1340004550 .0122017540 .00000 # \$2,240 #.29590 .1350004650 .0151024650 .00000 # \$1,240 #.59770 2.66540 .1390004440 .0112037500 .00000 # \$1,240 #.59560 2.00210 .1990002100 .0113049790 .000000 # \$1,200 #.25660 2.00210 .1990002100 .0113049790 .000000 # \$1,200 #.25660 2.00210 .1990002440 .0166045790 .000000 # \$1,200 #.2560 2.31860 .09900 .01560 .021058700 .000000 # \$1,200 #.2570 2.31860 .09900 .01560 .0210077590 .000000 # \$1,200 #.2270 2.31860 .09900 .01560 .0210077590 .000000 # \$1,200 #.2570 2.31860 .09900 .01560 .0210077590 .000000 # \$1,200 #.2570 2.31860 .09900 .0156047500 .000000 # \$1,200 #.2570 2.31860 .09900 .01560 .02100 .000000 # \$1,200 #.2570 2.31800 .1133022110 .011400194000000 # \$1,200 #.2570 2.32130 .1133022110 .011400194000000 # \$1,200 #.2570 2.32130 .1133022110 .011400194000000 # \$1,200 #.2570 2.32130 .1133010230 .01570 .010000 # \$1,200 #.2570 2.32130 .1133002930 .0143000000 # \$1,200 #.2570 2.32130 .1133002930 .0143000000 # \$1,200 #.2570 2.32130 .1133002930 .0143000000 # \$1,200 #.2570 2.32130 .11340009400097000000 # \$1,200 #.2570 2.32130 .11340009400097000900 .	MACH	AL PHA	ž		Š	¥W.	ŧ	ð	CAB	XCBA	Con	8
# 83.240	1.959	61.350	8.25190		.13400	05550	.01220	17540	00000	.51860	00000	17540
## CAPA	. 44	63.240	8.38210		13500	04650	.01510.	-,24650	.00000	.52130	. 00000	24650
99.150	1.955	67.260	8.59770		.13000	044BD	.01120	37500	.00000	,52850	.00000	37500
99.1270 6.25660 2.00210 .0998000340 .0131056900 .00000 .00000 .09910 .0998000340 .01171072780 .00000 .00000 .011713 0.00000 .00000 .01171072780 .00000 .00000 .01171072780 .00000 .00000 .01171072780 .00000 .00000 .01171072780 .00000 .00000 .01171072780 .00000 .00000 .01171072780 .00000 .00000 .00000 .01171072780 .00000 .00000 .00000 .01171072780 .00000 .00000 .00000 .011710 .011710 .011710 .011710 .011710 .00000	1.955	91.240	6.65220	2.53190	11790	02100	.01130	49030	.00000	.53540	. 00000	06067
101.030 6.42610 1.77270 .0954000440 .0116966160 .00000	. 955	95.220	6.55660	2.00210	08660	00380	.02310	-,57730	00000	.54180	.00000	57730
### CAP	664.	351.99	9.50560	1.71300	0.09640	00440	.01660	68080	00000	.54750	.00000	66060
### CMH CMH CLMH CTM CTM CTMM CB C 0.0000		000.101	0.47610	1.57270	06680.	00940	01710	72780	00000	.55000	.00000	72760
ALPM CMM CLM CLM CYM CYM CMM CB CA CAB e0.930 7.9777 1000000	664.1	6451504	0.52270	2.31660	.09300	.01560	02080	47500	00000	. \$3520	00000	47500
RUN NO. 156/ 0 RNL = 6.31 GRADIENT INTERNAL = -5.00/ 5.05 ALPHA CNH CLPH CTM CTM CTM CTM CBL CA CAB 80.950 7.97170 3.223790 .112240 .01140 .011940 .00000 80.850 8.16900 2.69770 .11710 .01390 .01570 .00000 94.850 8.16900 2.69770 .11710 .02990 .0145022870 .00000 94.850 8.16900 2.69770 .11760 .02990 .0145038510 .00000 96.850 8.16900 2.69770 .1176002990 .0145038510 .00000 96.850 8.16900 2.69770 .1176002990 .0145022870 .00000 96.850 8.16900 2.69770 .1176002990 .0126038500 .00000 90.80 80.8			-2.0a	-,0/08	cuc46	.00271	.00035	02756	00000	.00163	.00000	02756
### CN# CN# CLM# CYM CYM CM# CBL CA CAB ### CN# CLM# CYM CYM CYM# CBL ### CN# CLM# CYM CYM# CBL #### CN# CLM# CYM# CM# GBL #### CN# CLM# CYM# CM# GBL ##### CN# CLM# CM# CM# GBL ####################################												
# 60,950 7.97170 3.23790 .1224004650 .01370 .05010 .00000 .00000 .253130 .1133002110 .0114001940 .00000 .00000 .253130 .1135003790 .0057022870 .00000 .00000 .25970 .1171003990 .01450039310 .00000 .0	¥Ç¥	ALPHA	Ž	₩J5	CYM	CYNER	ේ	ð	CAB	XCP.A.	CAB	ğ
#2.840 6.02639 3.23130 .11339(2110 .0114001940 .00000 #6.850 6.0790 3.02600 .1186003790 .0057022670 .00000 #0.850 6.0790 2.02670 .117100390 .0145020310 .00000 #0.850 6.01570 2.02670 .1198002830 .0162020300 .00000 #0.850 6.01330 2.02670 .118000070 .0124002800 .00000 #0.800 6.13330 2.73550 .118001840 .011203860 .00000 #0.800 6.13390 2.02670 .118001800 .011203860 .00000 #0.800 6.1330 2.7355000098 .00226 .0003103738 .00000 #0.800 6.1330 2.23170 .13470 .03530 .01050 .00000 #0.500 7.85730 2.23170 .13470 .05230 .00000 .00000 #0.400 7.89730 2.19260 .10170 .03530 .1015035490 .00000 #0.400 7.89730 2.19260 .12590 .00000 .00000 #0.400 7.89730 2.0410 .10170 .03540 .0166005260 .00000 #0.410 7.89730 2.19260 .12610 .03840 .0168005360 .00000 #0.410 7.89730 2.0410 .11410 .03840 .0168006350 .00000 #0.410 7.89730 2.19260 .11810 .03840 .0168006350 .00000 #0.410 7.89730 2.19260 .11810 .03840 .0168006350 .00000 #0.410 7.98040 2.04700 .11410 .03840 .0168006350 .00000 #0.410 7.98050 2.75190 .14210 .03840 .01681 .00000	2.47	60.950	7.97170	3.23790	,12240	04650	01370	.05010	.00000	51190	00000	05010
## CAPTOR 2.02000 .1186003790 .0057022670 .00000 ## 0.655	2.47	82.840	6.02630	3.23130	.11330	(Z110	.01140	01940	20000	.51250	00000	01940
44.630 6.06570 2.39210 .1171008990 .0145059110 .00000 94.630 6.06570 2.39210 .1198002630 .0162056200 .00000 100.660 7.94580 1.90270 .10260 .01030 .0124062800 .00000 90.830 6.1330 2.73550 .1148001840 .0112056490 .00000 90.830 6.1330 2.73550 .11480 .01080 .0112056490 .00000 64.270000870709800098 .00226 .0000103738 .00000 62.420 7.75520 3.25170 .13470 .05030 .01770 .05620 .00000 62.420 7.56730 2.55170 .112930 .02300 .01770 .05620 .00000 64.420 7.95730 2.19260 .10170 .03530 .1016015490 .00000 94.420 7.92730 2.19260 .12760 .00000 94.420 7.92730 2.19260 .12760 .00000 94.420 7.92740 2.19260 .12760 .00000 94.420 7.92740 2.19260 .12760 .00000 94.420 7.92740 2.19260 .12760 .00000 94.420 7.92740 2.19260 .12760 .00000 94.420 7.92700 2.19260 .12760 .00000 94.420 7.92740 2.19260 .12760 .00000 94.420 7.92740 2.19260 .12760 .00000		20.00	6.07090	3.02900	11960	B780	.00370	22670	.00000	.51730	. 00000	22670
### CHAPTO 6.1927U .1198U1283U .1952U5895U .0000U 190.660 7.9458D 1.90440 .0953U .01430 .0195U68480 .0000U 90.830 6.13330 2.7355D .1148D0188U .0135G68480 .0000U GRADIENT000870709805098 .00226 .0503103738 .0000U ALPNA CHA CLAM CTM CTM CTM CB CA CAB 80.520 7.75620 3.25170 .13470 .05030 .01770 .09620 .0000U 82.420 7.85730 2.94410 .12930 .02490 .01950 .0000U 84.420 7.85730 2.1928U .12930 .04970 .015500500U 84.420 7.85730 2.1928U .12610 .04970 .0226062560 .0000U 84.420 7.85730 2.1928U .12610 .04970 .0226062560 .0000U 94.420 7.85730 2.1928U .11410 .0384U .0168U7005U .0000U		30.00	D. Toyou	27.69.7	ייייייייייייייייייייייייייייייייייייייי	06680.	.01450	-,39310	.00000	.52510	,00000	59310
## CAPTA CAMP		00.00	0.000.0	01265.3	11980	02830	.01620	50500	00000	.53110	. 00000	50500
## CAPTAIN TOTAIN TOTAIN THEN THE CAPTAIN TOTAIN TO	2.0.0	000.000	0.01150	E. U5270	10000	00070	.01240	62800	.00000	.53790	. 00000	62900
GRADIENT000870709806098 .00226 .0000336660 .000000		000'001	1000 A	1.50440	05560	.01430	.01960	68480	.00000	.54060	.00000	66460
######################################	2.4.2	90.030	0.15350	2,73550	.11480	01880	.01120	38680	.00000	. 52400	,00000	38680
ALPMA CAM CLAFF CYM CYMM CBL CA CAB 5.00 \$.00 60.220 7.75520 3.23170 .13470 .05530 .01770 .09620 .00000 66.420 7.85430 3.13410 .12530 .05530 .01770 .09620 .00000 56.410 7.92760 2.14160 .12530 .04630 .10150 .02210 .00000 50.410 7.92760 2.14160 .10170 .04520 .10150 .10150 .00000 50.410 7.92760 2.14160 .12510 .04570 .0522049690 .00000 59.390 7.87730 2.19260 .12510 .04370 .0226065260 .00000 50.410 7.92400 2.0470 .03440 .01600 .00000 50.410 7.92400 2.0470 .0526065260 .00000 50.410 7.94200 2.75190 .11410 .03440 .0191035430 .00000 644010 7.94200 2.75190 .14210 .05340 .0191035430 .00000		WALTEN!	-, 04087	# 01098	86000	.50226	.00031	03738	00000.	.00154	. 50000	05736
ALPMA CNM CTMM CTMM CTMM CA CAB 80.320 7.76520 3.25170 .13470 .05030 .01770 .09620 .00000 82.420 7.89430 2.94410 .16970 .02490 .01050 .02210 .00000 84.420 7.89400 2.41710 .13500 .04370 .14860 .00000 84.420 7.8750 2.14160 .12510 .04370 .14960 .00000 88.390 7.8770 2.1470 .11410 .0340 .01560 .00000 90.410 7.82040 2.4470 .11410 .0340 .0160 .7555 90.410 7.82040 2.4470 .11410 .0340 .01910 7555 .00000 90.410 7.9420 2.75190 .11410 .0340 .01910 35430 .00000 90.410 7.9420 2.0470 .11410 .0340 .01910 35430 .00000 90.410 7.9420 <			3		\$		HENT INTER!					
60.320 7.76520 3.23170 .13470 .05030 .01770 .09620 .00000 62.420 7.65730 3.14410 .12030 .02490 .01050 .02210 .00000 .00000 .02410 7.95740 2.14410 .13040 .00430 .1016016480 .00000 .00000 .04400 7.95760 2.44160 .12610 .056500592049690 .00000 .00000 .00260 7.8730 2.19280 .12610 .052600592049690 .00000 .00000 .00260 7.82040 2.0470 .12610 .03440 .0168070530 .000000	MACH	ALPMA	3	¥	AY.	C	ਵੱ	ð	CAB	XPA		5
#2.420 7.85750 3.13410 .12930 .02490 .01050 .02210 .000000	4.960	60.520	7.76520	3.25170	.13470	05030	01770	02960.	.00000	. 50970	00000	0.0000
\$6.410 7.89430 2.96410 .10170 .03650 .0195016460 .00000 . \$0.410 7.82760 2.71710 .13060 .04600 .1016035490 .00000 . \$4.420 7.95070 2.44160 .12510 .052600592049690 .00000 . \$8.390 7.87730 2.19280 .12550 .04970 .0226062560 .00000 . \$100.280 7.82040 2.0470 .11410 .03840 .0168070550 .00000 . \$90.410 7.94200 2.75190 .14210 .03790 .0191035430 .00000 .	4.960	62.420	7,05750	3.13410	.12930	. C2490	.01050	.02210	.00000	.51320	. 00000	02210
90.410 7.92760 2.71710 .13080 .04630 .1016035490 .00000 . 94.420 7.95070 2.44160 .12610 .052600592049690 .00000 . 98.590 7.87730 2.19280 .12510 .04970 .0226062560 .00000 . 100.280 7.82040 2.04700 .11410 .03840 .0168070550 .00000 . 90.410 7.94200 2.74190 .11410 .03840 .0191035430 .00000 . 64.410 7.94200 2.75190 .14210 .03790 .0191035430 .00000 .	4.960	86.410	7.89430	2.98410	.10170	.03650	.01950	16480	00000	.51680	. 00000	16460
84.420 7.85070 2.44160 .12510 .052600592049690 .00000 . 88.390 7.87730 2.19280 .12580 .04970 .0226062560 .00000 . 100.280 7.82040 2.04700 .11410 .03840 .0168070550 .00000 . 90.410 7.94200 2.75190 .14210 .03790 .0191035430 .00000 .	7.960	90.410	7.92760	2.71710	.13060	.04630	.10160	-,35490	00000.	.52290	. 00000	35490
\$8.390 7.8730 2.19280 .12580 .04970 .0226062560 .00000 . 100.280 7.82040 2.04700 .11410 .03840 .0168070550 .00000 . 90.410 7.94200 2.75190 .14210 .03790 .0191035430 .00000 . 64.4016.7 .002630608500536 .000410056404051 .00000 .	960	94.420	7.95070	2.44160	.12610	. 65260	-,05920	49690	. 65650	.52910	00000	49690
106.280 7.82040 2.04700 .11410 .03840 .0168076050 .00000 . 90.410 7.94200 2.75190 .14210 .03790 .0191035430 .00000 . GRACIENT .002630608505036 .000410006404051 .00000 .	4.960	000	7.67730	2.19260	,12560	04970	. 02260	62560	.00000	. 53410	00000	62560
90.410 7.94269 2.75190 .14210 .63790 .0191035430 .00000 . Gaacient .06263668805638 .000410666404051 .00600 .	4.960	100.280	7,62040	2.04700	.11410	.03840	.01680	-,70050	. 66669	.53750	00000	05004
. 002630608300036 .000410006404081 .00000	4.960	90.410	7.94200	2.75190	.14210	. 63790	01610.	35430	00000	.52230	. 00000	35430
•		CRACIENT	.00263	06085	05038	10000	00064	-,04051	.00000	. 00137	00000	64531

20.00	DAME ES ALL SE														
3	3				TABLE	ATED BOURC	TABULATED BOLRCE DATA, MSFC TWT 583	FC TW \$83					PAGE	25	
					Š	C 565 (TAIF	324 IN. 0	MSFC 365 (TAIF) 324 IN. 01A. ET (418 MOD)	ŝ		(K99073)		(EO HAR 76	. 92	
	ROTER	REPERENCE DATA	SATA								PARAMETRIC DATA	C DATA			
LACT CACT	.420 84. .9720 1N.	. 9720 IN. . 9720 IN. . 9720 IN.	9900 9900 9900 9900	6 G G	*****	.0000 IN.				BETA :	000			900.	
			3	ð	RUM NO. 147/ 0	RNA =	80°.	GRADIENT INTERVAL * -5.00 5.00	VAL # -5.	90 8 700					
MCH A. SAD	ALPWA -0 TER		CNEW	-	3	E	_	é	ಕ	3	XP.	8		į	
4.960		' '	20200	8 1	. 73800	-, 00290	00530	02490	.44660	27700	36190	00000	00	.72360	
4.963		•	21120	•	08668	בייסטונים	.01490	00000	.44120	27560	.35150	.00000	00	.71810	
4.960			.03660		04180	COCOC	00000	0,000	42450	27730	33640	00000	00	.70190	
4.960		1.0	.24370	•	.35550	00120	00360	0000	4.950	27740	38430	00000	20	.69310	
4.960		•	49220	•	69760	,00250	01320	01870	06014	01272	32910		2	.69540	
4.960	10.190	•	62910	•	95000	.00330	01410	02.00	0.104.	ere70	.33630		g	.70640	
4.960		•	.02310	•	.03800	06000	03320	01840	04004	23220	.35610	. 00000	g :	.71630	
	GRADIENT	٠ <u>.</u>	05950	•	08104	61000	00247	\$6000°-	00078	20000	00009	00000.	5 S	.00001	
					Š	\$83 (TAIF)	324 IN. 0[NSFC 583 (TAIF) 324 IN. DIA. ET (418 MCD)	8		(#99074)		(20 MAR 74	-	
	ROTRIDATE DATA	AG BA	TA								PARAMETRIC DATA	7140			
MET S	.7420 84. IN	~	NACO PE	56		2 Page 72									
ADT.	.9720 IN.	÷	THE	48	8	00 IN				BETA =	000	#		.000	
RAE .	.0420 IN.	÷	246		00.	.0000 IN.									
			2	₫	RUN NO. 1487 0	RN, #	4.96 GRA	GRADIENT INTERMAL # -5.00/ 5.00	₩ n -5.0	0/ 5,00					
H CH	AL PHA	3		ď	Ŧ	Č	3	ê	;	;					
4.960	10.490	0	62960	•	03360	06900	01300	01020	48000		ZeX.	E		ž	
4.960	12.410	.7.	78040	•	96600	00700	06800	-,00200	DARKA.	2,57750	06256.	.0000	.	222	
4.460	16.450	-0	09260	<u>-</u>	.21320	.00610	.02380	02880	ARKAD	D 275 a	3000	00000		.73040	
7.960	20.520	1.4	1.47630	 	.47070	.05610	.01280	02520	46110	27700	01060	onnno.	.	74330	
7.00	24.570	1.96	.96860		.66230	.01130	.01380	00200	49710	27460	0000	20000		.75010	
7.860	20.610	2,48660	099	2.0	1.86490	.01510	.04100	-, 02300	50770	225.80	39000	00000		77200	
4.960	30.540	8,75870	920	2.3	.96060	.01670	.03500	03510	.51190	2777	00000	30000.		78450	
394.4	20,500	1.47610	47610	7 (45770	09800.	. CS 1 80	.00530	.46400	27710	.41110	00000		76190	
		•	A		1000	26000*	02100°	00059	.00324	.00001	.00528	00000.		00323	

	REFERENCE DATA	CE CATA							PARAMETRIC DATA	DATA	•
BACT . LAGY : SCALE :	.7420 54. .9720 IN. .9720 OGSG	IN YAGE	ныц	3.2590 IN. .0000 IN.				BETA E	000.	#	000.
		RUN NO.	NO. 152/ 0	O RML =	4.96	GRADIENT INTERVAL =		-8.00/ 8.00			
HACH	ALPHA	3	£ 3	ž	3	ĕ	đ	97	ş	į	
4.960	\$09.601	7.13860	1.31740	05220	02940	02160	- 24690		ALPAL.	1945	2
4.960	107.760	7.26570	1.51780	~, 05330	06120	04000	16840	0000	04000	00000	16912"-
4.960	153,750	7.56810	1.67749	05460	00000	- 008AG	05601	ממממים.	124630	00000	-,16540
4.960	99.720	7.82120	1.95800	00000	DADAG -	0000	20000	oppoo.	204400	00000	02800
4.960	95.720	7.95200	2.19220	UCKSU!	00460	00000	0.664	nanna.	.53900	00000	13970
4.960	91.750	B. 04240	0 48940	Cess.	2000	02020-	16226.	00000	. 53460	00000	.32230
080	0.00	27.00	0.000	2000	02180	02230	.42850	. 00000	.52950	. 00000	.42850
	00.00	0.00740	E. 5924U	05710	09070	01020	.47260	.00000	.52660	00000	47260
Ř	24.750	1, 19590	1,96160	06200	01300	02040	.13449	. 00000	.53870	00000	13640
	CRACIENT	04712	C6219	.00044	, 00595	60000	03643	.60000	.00114	00000	03643
			70	. 583 (TA1F)	MSFC 583 (TAIF) 324 IN. DIA. ET (418 MCD)	. ET (418 M	ô		(R99076)	5) (20 HAR 74	22 2
	REPERENCE DATA	E DATA							PARAMETRIC DATA	DATA	
	.7420 54. IN .9720 IN.	N PRP PRP PRP PRP PRP PRP PRP PRP PRP PR	H 11 11	3,2590 IN. .0000 IN.				BETA =	000	*	. 600
SCALE E	.0230										
		RUN NO.	D. 1537 0	RML =	3.00 GRA	GRADIENT INTERVAL =		-5.00/ 5.00			
MACH	AL PHA	3	¥	£	CYSH	_{ල්}	ð	88	X S	900	1
4.960	189.650	4.83400	27975	03100	087.00	- 00 40	60.00	00000	1		2
4.960	127.740	5.08210	32660	03300	03640	ביסטים -	00100	00000	37240	00000	60760
4.900	123,710	5.61380	45130	03650	06.60		3000	0000	06176.	. 00000	57580
4.960	119,670	6.11540	61660	03970	OCTO.	20.00	02074.	oppoo.	.56850	. 00000	47020
4.960	115.630	6.81600	25070	04260	0000	01010	39890	00000	.56490	. 00000	39490
0.00	111 660	01760 4		04840	00000	2500	30800	. 0000	35990	.00000	30800
	200	01460	1,1671	3	02520	00330	-,21210	.00000	.55460	.00000	-,21213
	067,901	7.22540	1.82020	04710	.04140	.01210	15250	. 00000	.55310	. 00000	4.880
4.960	119.690	6.08700	.62170	04070	10430	.01450	A6238	00000	Read		3
			•					2000			

				HSFC 563	(TA1F)	MSFC 565 (TAIF) 324 IN. DIA. ET (418 MGD)	1. ET (418 H	8		(499077)		(20 MAR 74	74
	REFEREN	AEFERENCE DATA								PARAMETRIC DATA	C DATA		
SALT .	.7420 34.	IN YOUR	u	A PART TA	3					1			
LACF	.9720 IN.			0000 IN	ż				DETA	000.	Ĭ	u	000
CACT .	.9720 IN.		#	. 0000 IM	2								
SCALE E	0850*												
		3	RUN NO. 1517 B		RNL =	4.96 GRA	GRADIENT INTERVAL =		-5.60/ 5.00				
MACH		3	A TO	S	Æ	CYNE	ą	5	CAB	Va.	ġ		1
4.960	-	2,43410	03960		01560	.03460	.02360	89370	.00000	58540	90000		5
4.960		2.66530	•• 01990		-,01660	.0220	.02480	87490	00000	00000			# # P40F
4.96		3.12820	04540		01820	63450	.03520	\$2980	.00000	58500		900	82980
4.960		3.79370	.12360		-, 02425	.03330	.037:0.	77270	.00000	.57680	•	000	-,77270
304.		4.37830	.22640		01150	, 06490	.03160	-,70150	.00000	.57350	000	00000	70140
4.960		4.92100	.32150		-,03170	.04410	.03850	-,62630	.00000	.57110		000	62630
2		5.17610	.41520		03269	.01150	. 03520	58370	00000	.56850		000	4837
. 960		3.76000	.12570	•	02410	.03330	.02880	-,77080	, 00000	.57670	00000	900	770AO
	GRADIENT	13674	* 0229		24000	\$6000°-	00057	-,01539	.00000	.00087	.0000	900	01539
			¥	3FC 563 (1	TAIF	MSFC 583 (TAIF) 324 IN. BIA, ET (418 MCD)	ET (418 NO	â		(#9907#)		(20 MM 74	2
	RETERBAC	DACE DATA								PARAMETRIC DATA	DATA		
* 534		ž	48	3.2590 IN.	÷				BETA ::	900	Ē	ŧ	000
E ACT		A TAN	11	.0800 IN.	÷								
BASE =	.0720 IN.	ZK	**	.0000 IN.	÷								
		RUN NO.	5. 150/ S	SW.	11	4.98 GRAB	GRABITHT INTERVAL =		-5.08/ 5.80				
# CH	ALPHA	ž	T C	Š		CANE	8	2		Š	•		
4.968	169.650	.47720	-,40420	00168	1168	02538	03020	-1.02640	88800	TO SEE	60000		y i
6.960	167.740	. 59980	34220		270	01269	.02910	-1.02130	90000	40120			
4.960	163.700	38580	39480		540	. 62518	.00250	-1,08279	00000	559	00000		06130.1-
4.960	159.660	1.25280	-,35450		170	. G2 4 8 8	.00230	96810	.00000	63160			19000
4.960	155.540	1.79540	-,17230	01100	100	.01050	.00310	94040	00000	50010		3 5	21005
4.960	191,550	2,21760	-, 16440	-, 01430	430	.04210	.00020	0.906.~	00000	2040		3 6	300
4.960	149.630	2.42160	16650	31490	490	.01716	.03130	66510	00000	2000		3 6	15908
4.960	159.660	1,23960	36530	00760	200	.02500	07910	1 96.02D		F		3	-· e6510
												5	

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AR 74 3		000.	CPC -1.02840 -1.02840 -1.03800 -1.03730 -1.03730 -1.03730 -1.03500 -1.03030 -1.03500 -1.03600 -00050
(KSSU7S) (EG MAR 74	PARAMETRIC DATA	#	CF81 .00000 .00000 .00000 .00000 .00000 .00000
		000.	XGA. .59360 .79360 .73440 .72306 .73680 .73680 .79610
		BETA	CAB 224G ,00000 297G ,00000 310G ,00000 350G ,00000 350G ,00000 350G ,00000 350G ,00000
			CBL CA CA CA 02790 -1.02240 02790 -1.02240 03420 -1.03100 03400 -1.03130 03730 -1.03130 03730 -1.03130 03730 -1.03130 03400 03500 036000 03600
			4.55 GRADI CYNAT U3-66 U3-66 U3-86 U
DCF DATA	HUTROKE DATA	3.2590 IN. .0000 IN. .0000 IN.	CYM .00250 .00250 .0040 .0040 .0040 .0040 .0040 .0040
			CLMM NO. 1497 0 CLMM CLMM . 24110 30 . 24110 30 . 08680 1001130 1052580 3055440 1005210 1005210 15 . 03252
		S N N N N N N N N N N N N N N N N N N N	CAM 37880 28090 10290 .98340 .39600 .49000 95220
		. 9720 . 9720 . 9530	ALPHA 169.760 167.870 179.840 179.840 171.760 189.850 179.820
		MACT : LACF : BACF :: SKALE ::	MCM 4.965 4.965 4.960 4.960 4.960 4.960 4.960

